

## State of New Jersey

Christine Todd Whitman Governor

Department of Environmental Protection
Division of Solid & Hazardous Waste
120 S. Stockton Street
CN 421

Trenton, New Jersey 08625-0421 Phone# 609-292-9880 Fax# 609-633-9839 Robert

Robert C. Shinn, Jr.

Commissioner



MAY 0 8 1996

Andrew Bellina, P.E. Chief, Hazardous Waste Facilities, P.E. U.S. Environmental Protection Agency Region II 290 Broadway, 22nd Floor New York, New York 10007-1866

RE: Review of a Statement of Basis for the Hazardous and Solid Waste Amendments Permit Modification, Lenox China, a Division of Lenox, Inc., Pomona, Atlantic County, EPA ID No. NJD 002 325 074

The Division of Solid and Hazardous Waste's Bureau of Hazardous Waste Permitting has reviewed the above mentioned Statement of Basis for the HSWA Permit Modification for the referenced facility and has no comments.

If you have any questions, please contact Bob Patel of staff at (609) 292-9880.

Very truly yours,

Thomas Sherman, Chief

Bureau of Hazardous Waste Permitting

EP9/dbm

DOCUMENT: LENOX





13A

LENOX

LOUIS A. FANTIN VICE PRESIDENT SECRETARY LENOX COUNSEL NJD002325074

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when this is
opposed and
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to be es or
October 17, 1996

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#### HAND DELIVERED

Mr. Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
CN-028
Trenton, NJ 08625

Re: Pomona, New Jersey - The South Site

Dear Frank:

I want to thank you and Daryl Clark for taking the time last week to meet with us regarding the South Site. As a follow up to our meeting, I am enclosing two originals of the Amendment to the MOA, together with three originals of the Remedial Action Workplan. If this Amendment meets with your approval, please have Mr. Pedersen sign and return one original to me.

For this project, John Kinkela will be the Lenox contact person regarding technical matters and I will be the designated agent for purposes of service of all matters concerning the South Site.

By copy of this letter, I am transmitting the Amendment to the MOA and the Remedial Action Workplan to Andrew Park of EPA for informational purposes. We will also submit a copy of the Workplan to the Pinelands Commission after we receive NJDEP approval.

Frank, if you have any questions, do not hesitate to give John Kinkela or me a call. We are anxious to get this project completed before Winter.

Thanks very much for your assistance.

I have not this.

Very truly yours,

Louis A. Fantin

cc: Andrew Park
Gary Berman
John Kinkela

### AMENDMENT TO MEMORANDUM OF AGREEMENT IN THE MATTER OF THE TILTON ROAD SITE AND LENOX CHINA DATED OCTOBER 11, 1995 - CASE NO. 95-6-29-0905-37

The above captioned Memorandum of Agreement will be amended as follows:

- 1.1. For purposes of this Memorandum of Agreement a certain portion of Block 453, Lot 2 on the tax maps of the Township of Galloway, Atlantic County, New Jersey as shown on attached Figure 1 shall hereinafter be referred to as the "South Site".
- 6.1. Paragraph 6 above shall apply to the Site as defined in Paragraph 1 of this Memorandum of Agreement. As to the South Site defined in Paragraph 1.1. above, Lenox China agrees to submit and the Department agrees to review and approve the following documents:
  - a. Remedial Action Workplan.
  - b. Remedial Action Report for Remedial Action Workplan activities within thirty (30) calendar days after completion of Remedial Action Workplan activities.
- 6.2. The Department agrees that no further Remedial Investigation is necessary with respect to the South Site and that the cost summary described in Paragraph 12 of this Memorandum of Agreement is not required for the South Site.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Date:

By:

Mark J. Pedersen, Section Chief
 DRPSR Case Assignment Section

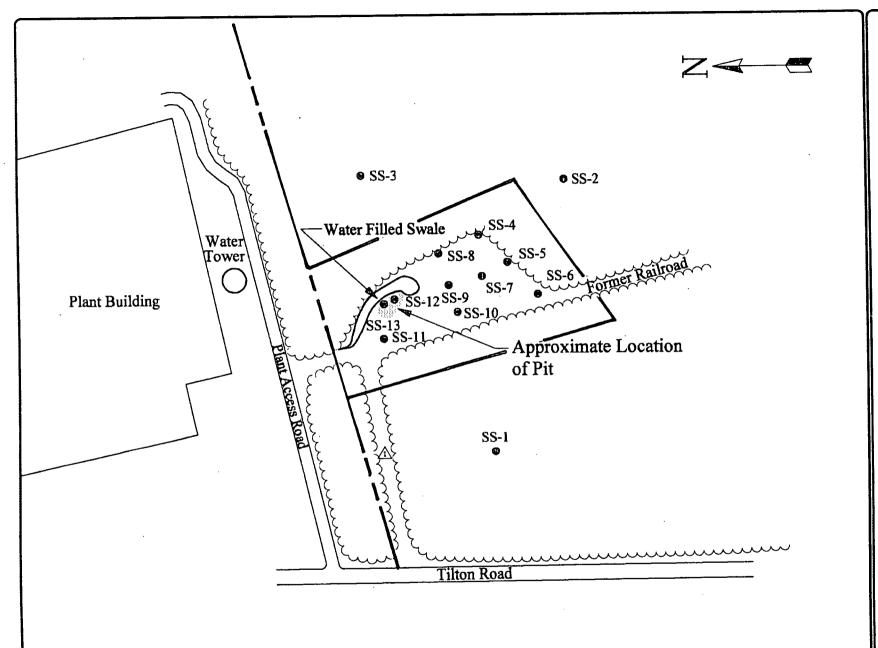
LENOX CHINA

Date:

Jerome J. Ciszewski
 Print Full Name Signed Above

Senior Vice President and President, Lenox Manufacturing Operations

Title



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Lenox China Pomona, NJ Figure 1
Soil Sampling
Locations

Drawing No.:

CE0268





### State of New Jersey

Christine Todd Whitman Governor

Department of Environmental Protection

Robert C. Shinn, Jr. Commissioner

NJD 002 325 074

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 2288 20898

OCT 24 1996

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, N.J. 08648

CA 600

Dear Mr. Fantin:

Re: Lenox China Facility

Remedial Action Work Plan (RAWP)
Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received the above referenced work plan prepared by CE Consultants, Inc. on behalf of Lenox China Inc. (Lenox) dated October 16, 1996. The Department has determined that the Work Plan is approved with the following minor comment which may be included as an addendum in lieu of submitting a revised RAWP:

The previous investigation performed in September did not include the collection of ground water samples. Lenox has proposed 3 geoprobe locations in order to characterize ground water down gradient of the area of concern. The Department recommends one additional geoprobe location in the area down gradient of the pit and water filled swale (north corner of the soil grid - see enclosed figure). These two areas contained the highest lead soil levels at the site, based on the September analytical results. Analysis of the ground water samples will be for lead, zinc and TCE.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Project Manager Bureau of Federal Case Management

enclosure

Andrew Park, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA



LOUIS A. FANTIN VICE PRESIDENT SECRETARY LENOX COUNSEL

October 25, 1996

NJD 002325074

Mr. Frank Faranca
Project Manager
Bureau of Federal Case Management
State of New Jersey
Department of Environmental Protection
CN-028
Trenton, NJ 08625

Re: Pomona, New Jersey - South Site

Dear Mr. Faranca:

Thank you for your letter of October 24, 1996, which communicates NJDEP's approval of the Remedial Action Workplan for the South Site. Lenox will install the one additional geoprobe down gradient of the pit and water filled swale as recommended in your letter.

We will now begin to contract for the remedial work at the South Site and notify the New Jersey Pinelands Commission of our intent to proceed with this project.

If you have any questions or need further information, do not hesitate to call me. Thanks very much for your assistance.

very truly yours,

Louis A. Fantin

cc: Andrew Park Gary Berman

John Kinkela



## State of New Jersey

Christine Todd Whitman Governor

Department of Environmental Protection

Robert C. Shinn, Jr.

Commissioner

DEBENED OCT 25 1996

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 2288 50898

OCT 24 1996

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, N.J. 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

Remedial Action Work Plan (RAWP) Galloway Township, Atlantic County

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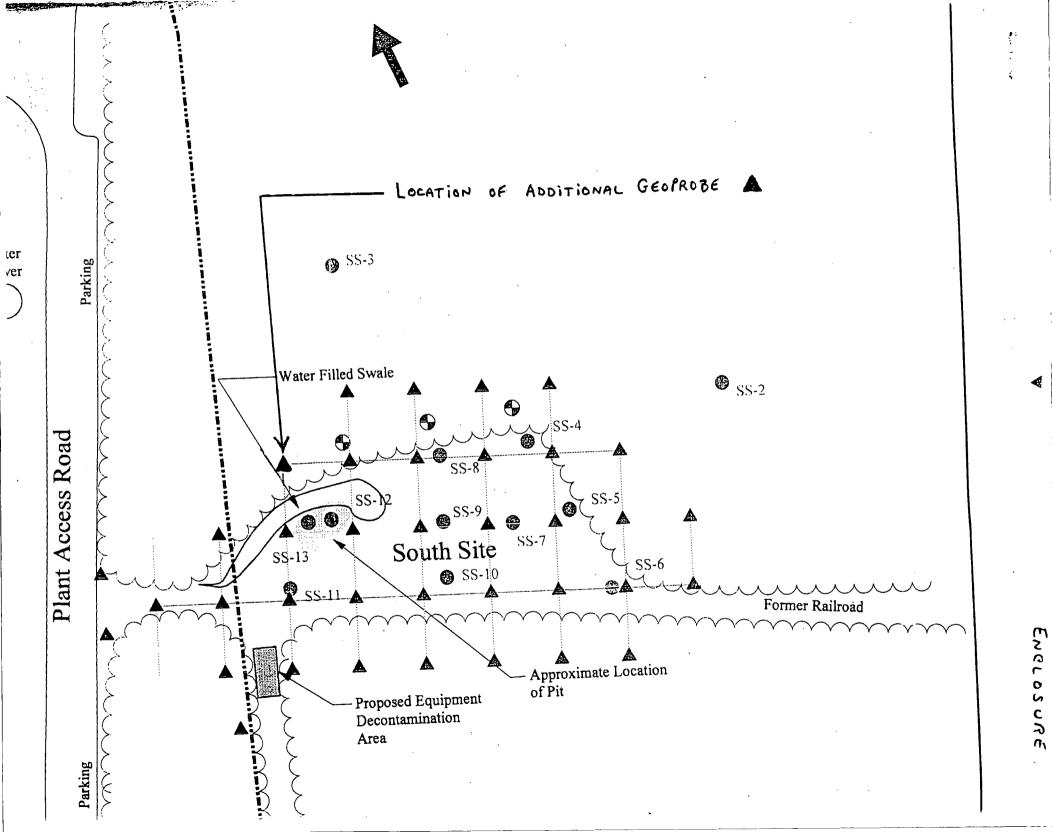
Should you have any questions, please contact me at (609) 984-4071.

Sincerely

Frank Faranca, Project Manager Bureau of Federal Case Management

enclosure

c: Andrew Park, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA





### State of New Jersey

Christine Todd Whitman

Department of Environmental Protection

Robert C. Shinn, Jr. Commissioner

NJD002325074

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO.

DEC 11 1996

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, N.J. 08648

Dear Mr. Fantin:

Re:

c:

Lenox China Facility

Atlantic County Utilities Authority/Treatment Works Approval

Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) received a copy of a correspondence from Lenox China, Inc. (Lenox) to the Atlantic County Utilities Authority (ACUA) dated December 2, 1996 regarding the temporary connection for wastewater generated from the remedial activities at the Lenox South Site. The estimated initial volume of water to be removed from an on-site depression will be 250,000 gallons and a daily volume of water thereafter estimated to be 100,000 gallons for the duration of the remedial activity estimated to be 10 working days. This water contains a trace concentration of lead (less than 0.6 mg/l) and therefore can not be reinjected back into the aquifer. It is the Department's understanding that a Treatment Works Approval is necessary for the conveyance system in order for the ACUA to accept this waste water and exceed their current limitation of 8,000 gallons per day per connection. The Director of Public Works for Galloway Township has approved this temporary discharge as to the quantity and quality of the water in their November 27, 1996 correspondence from the Township Engineer.

The Department has reviewed this proposal pursuant to the November 27, 1996 Amendment to the Memorandum of Agreement between the Department and Lenox and has determined that the ACUA and Lenox is deemed to have a Treatment Works Approval for this temporary discharge as a permit equivalent. Lenox and ACUA is also being informed that this permit equivalent is only allowed because the work is being conducted under the supervision of the Department's Site Remediation Program and the above mentioned Memorandum of Agreement.

Should you have any questions, please contact me at (609) 984-4071.

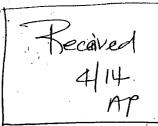
Frank Faranca, Project Manager

Bureau of Federal Case Management

Andrew Park, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA
Rick Wehrhan, ACUA
Todd DeJesus, Pinelands Commission

POMONA NEW JERSEY 08240

April 10, 1997



#### CERTIFIED MAIL - RETURN RECEIPT REQUESTED #P543413120

Mr. Andrew Park United States Environmental Protection Agency Air and Waste Management Division Hazardous Waste Facilities Branch Region II 26 Federal Plaza New York, New York 10278

Re:

HSWA Permit #NJD002325074

Lenox China Tilton Road

Pomona, NJ 08240

Dear Mr. Park,

This letter is being submitted to meet the following requirements of the revised HSWA permit effective date March 25, 1997.

- Completion Report required within 90 days after Effective Date of Permit (EDP)
- Corrective Measures Report required within 180 days after EDP
- ✓ Certification of Deed Restriction required within 60 days after approval of Corrective Measures Report
  - Demonstrate Financial Assurance within 60 days after EDP

Lenox previously submitted the Remedial Action Report prepared by its consultant, Eder Associates, to the New Jersey Department of Environmental Protection (NJDEP) on March 26, 1996. Copies were also submitted to the United States Environmental Protection Agency (USEPA) as required by the then current HSWA permit. This report fulfilled requirements for both the Completion and the Corrective Measures Reports. It also included the required Certification of Deed Restriction. Both the Hazardous and Solid Waste Ammendments (HSWA) permit and the New Jersey Pollution Discharge Elimination System (NJPDES) permit allowed a single report covering these activities to be prepared and submitted to USEPA and NJDEP, jointly. NJDEP conditionally approved the report in a letter dated May 6, 1996, with a copy to USEPA, and included comments from USEPA. NJDEP and USEPA were notified that the / required conditions had been met in a letter dated May 31, 1996.

As the remedial actions required under both the HSWA and NJPDES permits have been completed and approved, Financial Assurance that the work will be completed is redundent for the remediation work. The only remaining remedial activities are continued operation of the TCE Groundwater Remediation System and monitoring for the life of the permit. Based on over fifteen years of groundwater monitoring at this site and six years of operating the groundwater remediation system, Lenox does not believe that additional financial assurances are appropriate.

Should you have any questions concerning the above, please do not hesitate to contact me at (609) 965-8272.

Sincerely,

John F. Kinkela

Director of Environmental Engineering

JFK/jfk

CC:

M. Chinn

L. Fantin

G. Berman

Frank Faranca
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street CN 028
Trenton, New Jersey 08625-0028

United States Environmental Protection Agency
Office of Policy and Management
Permits Administration Branch
Region II
26 Federal Plaza
New York, New York 10278

Regional Administrator
United States Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10278

andrew Park



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USEPA
Office of Policy and Management
Permits Administration Branch
Region II
26 Federal Plaza
New York, New York 10278

**DATE: May 12, 1997** 

SUBJECT: Review of a Letter Dated April 10, 1997 from Lenox China, Pomona, New

Jersey, NJD002325074

FROM: Andrew Park

RPB-NJS

TO: Barry Tornick, Chief

RPB-NJS

I have completed review of the letter cited above. The letter indicates that the requirements of the HSWA Permit Modification, issued in February 1997 and effective as of March 25, 1997, have already been fulfilled through the previous submissions by Lenox China and reviews by NJDEP. I agree with this. However, Lenox China must still comply with the HSWA Modification requirements in relation to the South Site that was identified in late 1996 and is currently being remediated under the approved remedial action work plan.

Condition C.7 of the HSWA Modification requires the company to investigate and remediate, if necessary, any SWMUs/AOCs subsequently identified that have not been subject to the requirements of the HSWA permit and its Modification Investigations or remedial measures required for requirements. the South Site are subject to the requirements of the condition. The corrective action at the facility is currently subject to the MOA, previously to the NJPDES/DGW permit. The submission of quarterly progress reports are believed to be not required under the MOA. It would be unnecessary to require more than what is required under the MOA since we have in general good understanding of the site and of the remedial measures that are currently ongoing. However, we should be informed of all matters related to the South Site, as NJDEP is informed of, including providing of the remedial action report which is due July 1997. Therefore, I recommend that the attached letter be sent to Mr. John Kinkela of Lenox China.

Attachment

## CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. John F. Kinkela Director of Environmental Engineering Lenox Tilton Road Pomona, New Jersey 08240

Re: Lenox China, Pomona, New Jersey, NJD002325074

Dear Mr. Kinkela:

The U.S. Environmental Protection Agency Region II (EPA) have completed review of a letter from you dated April 10, 1997, indicating that the requirements of the HSWA Permit Modification, issued in February 1997 and effective as of March 25, 1997, have already been fulfilled through the previous submittals. EPA agrees that the previous submittals fulfill the requirements of the HSWA Permit Modification concerning the items cited in your letter.

However, the investigations and remediation required for the South Site whose existence EPA was informed of in October 1997 must be conducted in compliance with Condition C 7 of the HSWA Permit Modification. EPA must be continued to be informed of all matters related to the South Site, as the New Jersey Department of Environmental Protection (NJDEP) is informed of, including the Remedial Action Report which is due July 1997. Furthermore, any documents reports or correspondence - related to the groundwater monitoring and also to the groundwater remediation must be continued to be provided to EPA, as they are provided to NJDEP.

If you have any questions, please contact Mr. Andrew Park, of my staff, at (212) 637-4184.

Sincerely yours,

Raymond Basso, Chief RCRA Programs Branch

cc: Louis Fantin, Lenox Frank Faranca, NJDEP MAY 2 8 1997

## CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. John F. Kinkela Director, Environmental Engineering Lenox China Tilton Road Pomona, New Jersey 08240

Re: Lenox China, Pomona, New-Jersey, NJD002325074

Dear Mr. Kinkela:

The U.S. Environmental Protection Agency (EPA) Region 2, has completed review of your letter, dated April 10, 1997, indicating that the requirements of the HSWA Permit Modification, issued in February 1997 and effective as of March 25, 1997, have already been fulfilled through previous submittals. EPA agrees that the previous submittals fulfill the requirements of the HSWA Permit Modification cited in your letter.

However, the investigation and remediation required for the South Site, which you informed EPA of in October 1996 must be conducted in compliance with Condition C.7 of the HSWA Permit Modification. Lenox must continue to inform EPA and the New Jersey Department of Environmental Protection (NJDEP) of all matters related to the South Site, including the Remedial Action Report, which is due in July 1997. Furthermore, any documents such as reports or correspondence relating to groundwater monitoring and remediation must continue to be provided to both EPA and NJDEP.

If you have any questions, please contact Mr. Andrew Park, of my staff, at (212) 637-4184.

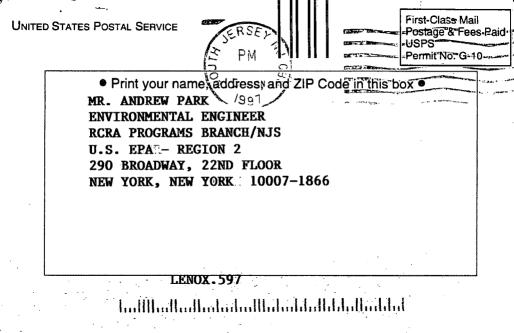
Sincerely yours,

Raymond Basso, Chief RCRA Programs Branch

cc: Louis Fantin, Lenox Frank Faranca, NJDEP

bcc: Raymond Basso, 2DEPP-RPB
Barry Tornick, 2DEPP-RPB
Andrew Park, 2DEPP-RPB
Hanna Maciejko, 2DEPP-RPB

on the reverse side?	SENDER:  Complete items 1 and/or 2 for additional services.  Complete items 3, 4a, and 4b.  Print your name and address on the reverse of this form so that we card to you.  Attach this form to the front of the mailpiece, or on the back if space permit.  Write "Return Receipt Requested" on the mailpiece below the article. The Return Receipt will show to whom the article was delivered and delivered.	e does not e number. d the date	Restricted Delivery  Consult postmaster for fee.	ceipt Service.
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	MR. JOHN F. KINKELA	Z. 1360605 522		Ξ
	DIRECTOR, ENVIRONMENTAL ENGINEER	4b. Service Type		탏
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MAY 2 8 1997

# CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. John F. Kinkela
Director, Environmental Engineering
Lenox China
Tilton Road
Pomona, New Jersey 08240

Re: Lenox China, Pomona, New Jersey, NJD002325074

Dear Mr. Kinkela:

The U.S. Environmental Protection Agency (EPA) Region 2, has completed review of your letter, dated April 10, 1997, indicating that the requirements of the HSWA Permit Modification, issued in February 1997 and effective as of March 25, 1997, have already been fulfilled through previous submittals. EPA agrees that the previous submittals fulfill the requirements of the HSWA Permit Modification cited in your letter.

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If you have any questions, please contact Mr. Andrew Park, of my staff, at (212) 637-4184.

Sincerely yours,

Raymond Basso, Chief RCRA Programs Branch

cc: Louis Fantin, Lenox Frank Faranca, NJDEP

bcc: Raymond Basso, 2DEPP-RPB Barry Tornick, 2DEPP-RPB Andrew Park, 2DEPP-RPB Hanna Maciejko, 2DEPP-RPB



June 18, 1997

Mr. Frank Faranca
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street CN 028
Trenton, New Jersey 08625-0028

NJD 002 325074

Re:

South Site Reclamation Project

Dear Mr. Faranca:

This letter will confirm our telephone conversation regarding future work on the above referenced project. As discussed, preliminary quality control samples were taken at the site, the results of which have detailed the extent of the remaining impacted soils above the cleanup standard of 400 mg/kg of lead. Utilizing this information, Lenox is able to begin the final cleanup of the site which is anticipated to begin just after July 4, 1997.

The sequence of the cleanup project is projected as follows:

The first work to be performed will be the excavation of the impacted soil, as determined by the quality control sampling performed previously, on the plant side of the pond near the piping with the impacted soil removed prior to taking confirmation samples. Due to the problems associated with leaving this area open, backfilling with clean soils taken from the drainage ditch excavation will proceed immediately after sampling.

Samples will be taken at the above location, as well as all sampling locations after removal of impacted soil, as shown on the attached drawing.

Samples will be taken of a 0 inch to 6 inch interval in a quadruple pattern around each sample location. Each of the quadruple samples will be taken within 1 foot of the location center.

One of the samples will be analyzed and if that result is below the cleanup standard, no further analyses will be performed. If the result is above the cleanup standard, the other three samples will be analyzed and the four results averaged to determine compliance with the standard.

The remainder of the site will then be excavated to remove impacted soil and excavation continued until samples, taken as described above, confirm the cleanup standard has been achieved.

All impacted soil will be staged and a determination made as to whether the soil will be shipped out for disposal or processed to reduce the lead concentration by screening to beneath the cleanup standard.

After screening and confirmation sampling results prove the processed soil meets clean soil standards, the clean processed soil will be placed at the bottom of the former pond area. This soil will then be topped with clean soil which was excavated to form the drainage channel on the site.

At the conclusion of impacted soil removal, processing and backfilling, the groundwater will be sampled using geo-probes as described in the approved workplan for this project.

As discussed with you, this letter will serve as notice of the soil cleanup activities while notice of the groundwater sampling will be given approximately two weeks prior to commencement. Assuming that we do not here from you to the contrary, the soil cleanup activity will begin on or about July 5, 1997.

Once again, thank you for assistance in this matter.

Sincerely yours,

John F. Kinkela

Director of Environmental Engineering

JFK/jfk

Enclosure: South Site Sampling Map

cc w/encls

M.E. Chinn

L.A. Fantin G.W. Berman

Mr. Andrew Park

United States Environmental Protection Agency

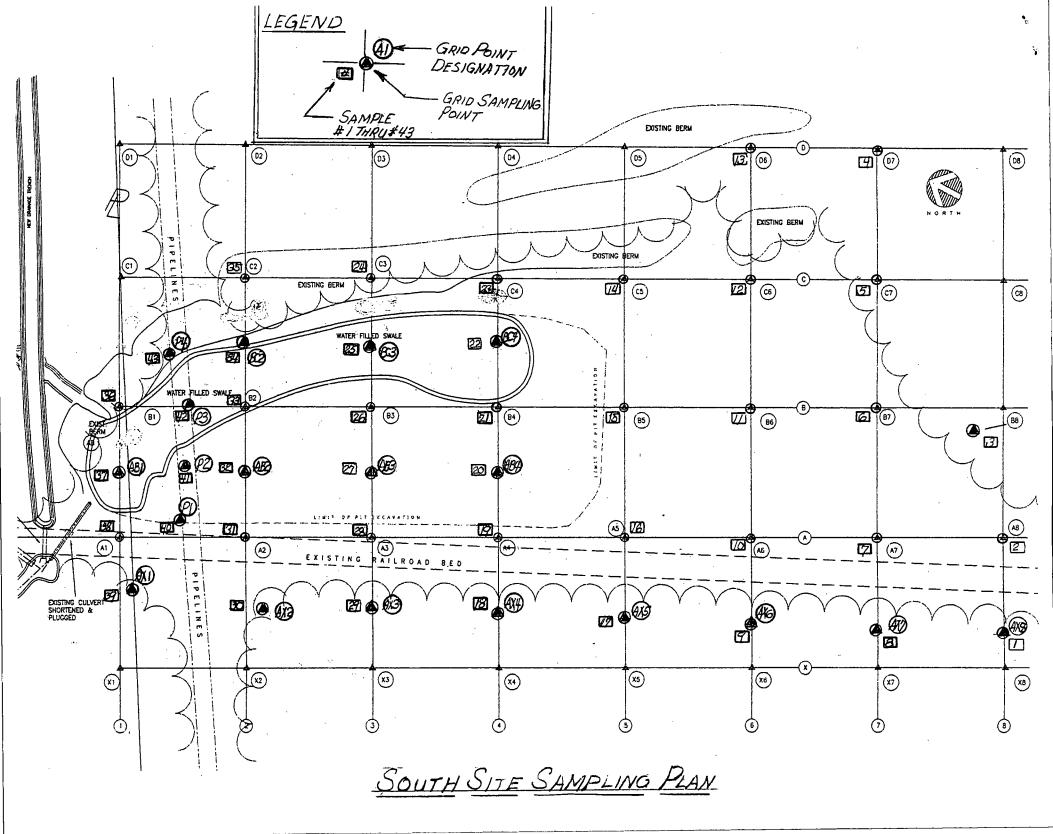
Air and Waste Management Division

Hazardous Waste Facilities Branch

Region II

26 Federal Plaza

New York, New York 10278



From:

Frank Faranca <FFARANCA@dep.state.nj.us>

To:

R2NYC06.R2DEPDIV(PARK-ANDY),RTPMAINHUB.INTERNET("D...

Date:

1/22/98 10:17am

Subject:

Lenox China Update

NJD002325074

\*\* High Priority \*\*

Daryl & Andy, please find below an update from John Kinkela. Frank

Frank.

Happy New Year. We made quite a bit of progress over the holidays due to the unseasonably good weather and good luck with a couple of difficult moves. We have now completed decontamination of the entire pit and most of the grade level areas with the exception of the roadbed. All clearance samples have been certified by the outside laboratory, so there will be no surprises there..

The week before Christmas, we built a 70,000 gallon, double lined, temporary containment adjacent to the pit, dewatered the pit into it, scraped the bottom clean, took clearance samples and backfilled. The rest of the work has been at or above groundwater despite the recent rains.

The water in the containment was treated to remove total suspended solids and precipitate any lead. The water was then discharged to sewage through appropriate filtration. About 3,000 gallons of water remains, to be used to close the containment and remove any sludge.

We expect to finish excavating the small amount of material remaining in the plant end of the pit, on Lenox property, today or tomorrow. Final decontamination of this small area will be completed next week. Excavated material is being screened to remove recyclables, plaster concrete, refractories, wood, etc. before disposing of any contaminated soils.

Next week we will start removing the old roadbed, screening out the contaminated soils. Weather permitting, the site could be completely decontaminated in as little as one month. All that would remain is the geoprobe groundwater sampling and preparation of a remediation report.

This is a much better picture than I last communicated back at Thanksgiving. Call me if you have any further questions.

regards,

John

Reply Separator

Subject: Lenox China South Site

Author: FFARANCA@dep.state.nj.us (Frank Faranca) at INTERNET

Date: 1/22/98 07:44

\*\* High Priority \*\*

Hi John,

How are things going with regard to the remediation of the South

Site? Can you please provide me an update so that I can project when the RA Report will be submitted? Thanks Frank

From:

ANDY PARK

To:

btornick

Date:

1/22/98 1:57pm

Subject:

Lenox China Update - Forwarded

NJD002 325074

Please let me know if you have any concerns. Thanks.

#### Record of Conversation with Frank Faranca, NJDEP 1/22/98

Initially, the company was allowed to discharge water/groundwater to the Utilities Authority at the rate of 100,000 gallons per day for a few days. However, the time ran out with some of the water/groundwater still left in the pit to be treated and discharged. The 70,000 gallons of the double lined temporary containment was built to provide necessary storage and treatment for the water so that treated water could be discharged to the sewage at much slower rates that are acceptable to the Utilities Authority, while providing the remediation of the pit. Any residual materials in the temporary containment will be disposed of off site and the unit will be closed.

The results of water/groundwater samples show that lead, the only constituent of concern for the plt area, has a highest concentration around at 0.6 ppm.

>>> Frank Faranca <FFARANCA@dep.state.nj.us> 01/22/98 10:17am >>> \*\* High Priority \*\*

Daryl & Andy, please find below an update from John Kinkela. Frank

Frank,

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regards,

Reply Separator

Subject: Lenox China South Site

Author: FFARANCA@dep.state.nj.us (Frank Faranca) at INTERNET

Date: 1/22/98 07:44

\*\* High Priority \*\*

Hi John,

How are things going with regard to the remediation of the South Site? Can you please provide me an update so that I can project when the RA Report will be submitted? Thanks Frank

NJD 002 325074

From:

ANDY PARK

To:

TORNICK-BARRY 1/22/98 4:13pm

Date: Subject:

Lenox China Update - Forwarded -Reply -Reply

It appears fine to me.

>>> BARRY TORNICK 01/22/98 04:06pm >>> Do you have any concerns?

>>> ANDY PARK 01/22/98 01:57pm >>> Please let me know if you have any concerns. Thanks.

Record of Conversation with Frank Faranca, NJDEP 1/22/98

Initially, the company was allowed to discharge water/groundwater to the Utilities Authority at the rate of 100,000 gallons per day for a few days. However, the time ran out with some of the water/groundwater still left in the pit to be treated and discharged. The 70,000 gallons of the double lined temporary containment was built to provide necessary storage and treatment for the water so that treated water could be discharged to the sewage at much slower rates that are acceptable to the Utilities Authority, while providing the remediation of the pit. Any residual materials in the temporary containment will be disposed of off site and the unit will be closed.

The results of water/groundwater samples show that lead, the only constituent of concern for the pit area, has a highest concentration around at 0.6 ppm.

>>> Frank Faranca <FFARANCA@dep.state.nj.us> 01/22/98 10:17am >>>
\*\* High Priority \*\*

Daryl & Andy, please find below an update from John Kinkela. Frank

Frank,

Happy New Year. We made quite a bit of progress over the holidays due to the unseasonably good weather and good luck with a couple of difficult moves. We have now completed decontamination of the entire pit and most of the grade level areas with the exception of the roadbed. All clearance samples have been certified by the outside laboratory, so there will be no surprises there..

The week before Christmas, we built a 70,000 gallon, double lined, temporary containment adjacent to the pit, dewatered the pit into it, scraped the bottom clean, took clearance samples and backfilled. The rest of the work has been at or above groundwater despite the recent rains.

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Next week we will start removing the old roadbed, screening out the contaminated soils. Weather permitting, the site could be completely decontaminated in as little as one month. All that would remain is the

geoprobe groundwater sampling and preparation of a remediation report.

This is a much better picture than I last communicated back at Thanksgiving. Call me if you have any further questions.

regards,

John

\_\_\_\_\_\_Reply Separator

Subject: Lenox China South Site

Author: FFARANCA@dep.state.nj.us (Frank Faranca) at INTERNET

Date: 1/22/98 07:44

\*\* High Priority \*\*

Hi John,

How are things going with regard to the remediation of the South Site? Can you please provide me an update so that I can project when the RA Report will be submitted? Thanks Frank

From:

**BARRY TORNICK** 

To:

**PARK-ANDY** 

Date:

1/23/98 4:03pm

Subject:

Lenox China Update - Forwarded -Reply -Reply -Reply -Reply -Reply

If the waste put into the unit is not hazardous by characteristic and it is not known whether there is any listed waste (we don't have to go to extraordinary efforts to determine if it is listed waste) then there is no problem because it is not subject to Subtitle C.

NJD002325074

It is not clear to me how you can treat the unit as a SWMU instead of a regulated unit. A SWMU cannot receive hazardous waste. If it does, it is received illegally, I am also not clear on the groundwater issue. If groundwater, naturally flowed into the area, it would not constitute placement (if what is placed contains hazardous waste). If someone puts the water into the unit that contains hazardous waste, then the water cannot legally be put into it unless it is somehow allowed to receive hazardous waste.

I don't think Subtitle D is an issue, but I don't really care.

Let's discuss, if necessary.

#### >>> ANDY PARK 01/22/98 05:29pm >>>

During the earlier conversation with Frank, it was unknown whether the temporary containment is above ground or inground. At one point he said it was dug up and, at other times, he said he was unsure.

We also discussed on whether a permit was needed for the unit. The fact that water collected in the pit is at or below the local groundwater table could classify the water as groundwater. Although there has been no formal determination on the RCRA status of the south site, it has been treated as a SWMU or AOC, as opposed to a RCRA-regulated unit. It is unknown to me whether the wastes disposed of in the south site could have been classified listed hazardous wastes. The lead concentrations are below the toxicity characteristic level for lead, 5 ppm. No information above indicates that the water/groundwater collected in the pit is an environmental media that contains hazardous wastes. Therefore, even if the unit is a surface impoundment, it would not be required to have a RCRA Subtitle C permit.

I do not know what is required of the unit under the Subtitle D.

>>> BARRY TORNICK 01/22/98 04:53pm >>>

It looks to me like they built a surface impoundment without a permit.

>>> ANDY PARK 01/22/98 04:13pm >>> It appears fine to me.

>>> BARRY TORNICK 01/22/98 04:06pm >>> Do you have any concerns?

>>> ANDY PARK 01/22/98 01:57pm >>>

Please let me know if you have any concerns. Thanks.

#### Record of Conversation with Frank Faranca, NJDEP 1/22/98

Initially, the company was allowed to discharge water/groundwater to the Utilities Authority at the rate of 100,000 gallons per day for a few days. However, the time ran out with some of the water/groundwater still left in the pit to be treated and discharged. The 70,000 gallons of the double lined temporary containment was built to provide necessary storage and treatment for the water so that treated water could be discharged to the sewage at much slower rates that are acceptable to the Utilities Authority, while providing the remediation of the pit. Any residual materials in the temporary containment will be disposed of off site and the unit will be closed.

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>>> Frank Faranca <FFARANCA@dep.state.nj.us> 01/22/98 10:17am >>> \*\* High Priority \*\*

Daryl & Andy, please find below an update from John Kinkela. Frank

Frank,

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This is a much better picture than I last communicated back at Thanksgiving. Call me if you have any further questions.

Subject: Lenox China South	Reply Sepon S	parator
John	Donly Co.	
, laba		
regards,	,	

\*\* High Priority \*\*

Date: 1/22/98 07:44

Hi John,

How are things going with regard to the remediation of the South Site? Can you please provide me an update so that I can project when the RA Report will be submitted? Thanks Frank

From:

**ANDY PARK** 

To:

RTPMAINHUB:RTPMAINHUB.INTERNET("FFARANCA@dep.state...

Date:

1/26/98 1:30pm

Subject:

Lenox China Update -Reply

NJD 002 325074

Hi Frank,

Barry and I discussed on this and we would like to have you respond to the following questions:

- Is the South Site a SWMU/AOC or a RCRA-regulated unit?
- If the South Site is a SWMU/AOC, would the wastes that were disposed of in the unit have been RCRA listed wastes if the current RCRA regulations were applicable at the time of the disposal?
- If the South Site is a RCRA-regulated unit, are the wastes that were disposed of in the unit RCRA listed wastes or hazardous only due to hazardous characteristics?

Please let me know. Thanks. Andy Park

>>> Frank Faranca <FFARANCA@dep.state.nj.us> 01/22/98 10:17am >>>
\*\* High Priority \*\*

Daryl & Andy, please find below an update from John Kinkela. Frank

Frank,

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This is a much better picture than I last communicated back at Thanksgiving. Call me if you have any further questions.

regards,

John

\_\_\_\_\_ Reply Separator

Subject: Lenox China South Site

Author: FFARANCA@dep.state.nj.us (Frank Faranca) at INTERNET

Date: 1/22/98 07:44

\*\* High Priority \*\*

Hi John, How are things going with regard to the remediation of the South Site? Can you please provide me an update so that I can project when the RA Report will be submitted? Thanks Frank

CC: btornick

NJD002325074

From:

**ANDY PARK** 

To:

RTPMAINHUB: RTPMAINHUB. IN TERNET ("FFARANCA@dep. state...

Date:

1/27/98 9:13am

Subject:

Lenox China Update -Reply (supplement)

Hi Frank,

I forgot to add one more item of question to the e-mail that I sent to you yesterday (1/26).

It is my understanding that the water/groundwater in the pit results from groundwater flowing onto the pit, not from dumping of water into it. Please confirm this. Thanks.

Andy Park

CC:

btornick

NJD002325074

From:

Frank Faranca <FFARANCA@dep.state.nj.us>

To:

R2NYC06.R2DEPDIV(PARK-ANDY)

Date:

2/2/98 7:32am

Subject:

Re: Lenox China Update -Reply -Forwarded -Forwarded

\*\* High Priority \*\*

Andy,

Attached please find the answers to your questions regarding the Lenox South site. These answers are provided from John Kinkela at Lenox. Please call if you have any questions.

Frank

CC:

RTPMAINHUB.INTERNET("DCLARK@dep.state.nj.us")

From:

<John Kinkela@b-f.com>

To:

RTPMAINHUB.INTERNET("FFARANCA@dep.state.nj.us")

Date:

1/29/98 3:28pm

Subject:

Re: Lenox China Update -Reply -Forwarded

Frank.

Here are the answers to EPA's questions:

- 1. Per our notification to Andrew Park, USEPA, June 11, 1997, the South Site is a SWMU.
- 2 The site wastes are D008 RCRA Characteristic Wastes.
- 3. Not Applicable

You and I also discussed the following in a telephone conversation January 28, 1997:

- 1. The sludge I referred to in my January 22, 1997 update consists solely of a light coating of soil sediments from the groundwater pumped to the temporary containment;
- 2. The groundwater pumped to the temporary containment consists solely of groundwater seeping into the working excavation and any stormwater from the site. All of the Lenox plant stormwater was diverted onto the Lenox property prior to starting remediation work on the site.

If you have any other questions or concerns please contact me at (609) 965-8272 or e:mail to me at john kinkela@b-f.com

Regards,

John

Reply Separator Subject: Lenox China Update -Reply -Forwarded

Author: FFARANCA@dep.state.nj.us (Frank Faranca) at INTERNET

Date: 1/27/98 07:21

\*\* High Priority \*\*

Hi John,

Whoever said that a "little bit of knowledge is dangerous", was absolutely correct..... Attached please find an email from EPA requesting information on the south site as a follow up to the FYI update that I gave them last week. Please forward your comment to me so that I can send it to EPA. Thank you.

-----Embedded message follows:-----

Received: from state.nj.us ([199.20.64.40])

by gw.dep.state.nj.us (GroupWise SMTP/MIME daemon 4.1 v3)

; Mon, 26 Jan 98 17:32:05 EST

Received: from merlin.rtpnc.epa.gov by state.nj.us (SMI-8.6/SMI-SVR4)

id RAA04794; Mon, 26 Jan 1998 17:19:38 -0500

Received: from RT-MAIL2.RTPTOK.EPA.GOV by epamail.epa.gov (PMDF V5.1-8 #22480)

with SMTP id <0ENEWII4X003PX@epamail.epa.gov> for FFARANCA@dep.state.nj.us;

Mon, 26 Jan 1998 17:15:54 -0500 (EST)

Received: from RTPMAINHUB-Message\_Server by RT-MAIL2.RTPTOK.EPA.GOV with

Novell\_GroupWise; Mon, 26 Jan 1998 17:20:05 -0500

Message-id: <s4ccc5c5.025@RT-MAIL2.RTPTOK.EPA.GOV>

X-Mailer: Novell GroupWise 4.1

Date: Mon, 26 Jan 1998 13:30:02 -0500

From: ANDY PARK <PARK.ANDY@epamail.epa.gov>

To: FFARANCA@dep.state.nj.us

Cc: TORNICK.BARRY@epamail.epa.gov Subject: Lenox China Update -Reply

Mime-Version: 1.0

Hi Frank.

Barry and I discussed on this and we would like to have you respond to the following questions:

- Is the South Site a SWMU/AOC or a RCRA-regulated unit?
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Please let me know. Thanks. Andy Park

>>> Frank Faranca <FFARANCA@dep.state.nj.us> 01/22/98 10:17am >>>

\*\* High Priority \*\*

Daryl & Andy, please find below an update from John Kinkela. Frank

Frank

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to the unseasonably good weather and good luck with a couple of difficult moves. We have now completed decontamination of the entire

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This is a much better picture than I last communicated back at Thanksgiving. Call me if you have any further questions.

regards,

John

\_ Reply Separator

Subject: Lenox China South Site

Author: FFARANCA@dep.state.nj.us (Frank Faranca) at INTERNET

Date: 1/22/98 07:44

\*\* High Priority \*\*

Hi John,

How are things going with regard to the remediation of the South Site? Can you please provide me an update so that I can project when the RA Report will be submitted? Thanks Frank



# State of New Jersey

Department of Environmental Protection

2 /3/ Recld 4/20/98 AP

Robert C. Shinn, Jr.

Commissioner

Christine Todd Whitman Governor

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. PUSO (04266\_\_\_\_\_

APR 15 1998

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

Discharge to Ground Water Report Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received the above referenced report prepared by Eder Associates on behalf of Lenox Incorporated (Lenox) and dated March 27, 1998. As noted in the Report, the analytical results presented in Table 1 and the TCE concentration contour map in figure 2 show that TCE concentrations exceeding 1 ppb extend beyond the Atlantic Avenue area. This is consistent with previous data and TCE concentration maps submitted by Eder Associates on behalf of Lenox. The Department and EPA are in agreement with Lenox' 1-ppb TCE isoconcentration contour boundary. The Department and EPA have also determined that the report is acceptable with the incorporation of the following comments:

- 1. Data Tables (General) Pursuant to the Technical Requirements for Site Remediation (N.J.A.C. 7:26E-3.13(c) 3.i and v.), the following items must be addressed in all future reports:
  - All contaminant concentrations exceeding the applicable remediation standards shall be identified.
  - The data in the summary table shall be presented both as a hard copy and an electronic deliverable using the database format outlined in detail in the current HAZSITE application or appropriate spreadsheet format specified in the Department's electronic data interchange handbook in effect as of the date the report is prepared. The Electronic Data Interchange Handbook and a copy of the current HAZSITE application software may be obtained from the Department by calling (609) 633-1476.
- 2. Lenox should be aware that the Department will evaluate the lead/zinc contamination based on the GWQC established for the New Jersey Pinelands (NJAC 7:9-6.5(d) 2.ii.). These criteria will be developed as a result of the Lenox 3-year statistical study and not on the POLs. Lenox must therefore determine the GWQC for lead and zinc at their site by

calculating the arithmetic mean for each parameter based on the ground water concentrations detected in the upgradient wells during the 3-year study.

- 3. The letter accompanying the report states that a summary of the inspection logs is included in the report. No summary has been included. The summary or the actual logs must be submitted.
- 4. The Department's review of the unfiltered and filtered metal results shows that the filtered concentrations of zinc are higher than the unfiltered concentrations in some samples. Since Lenox has previously indicated that filtered metal results will be used in conjunction with other evidence to show that metals are naturally attenuating, Lenox must provide an explanation for the higher filtered concentrations.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Project Manager Bureau of Federal Case Management

C: Andrew Park, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA
Todd DeJesus, Pinelands Commission
John Kinkela, Lenox China Inc.

BARRY TORNICK

To:

NJ

Date:

5/13/98 11:33am

Subject:

**FOIA Request** 

NJD 002 325074

We received a request for information on facilities that have RCRA permits and that have a remedy selected to pump and treat GW and reinject it back into the aquifer. Attached is the list of HSWA permits issued. Review the list and identify facilities assigned to you that meet the above criteria. Please respond by May 19 that you either have any facilities that meet the criteria or that you don't.

5/14/98 ROC W/ Frank Faranca, NJD&P

Lenox has 6w pump & treat. The treat 600

is sprayed on soil for infiltration.

He agreed that it would meet the

criferia.

Andy Parke

### 10/6/97

# HSWA Permits Issued By EPA

NJD002451490	Allied-Signal	06/29/92		
NJD045445483	Amerada Hess *		03	/31/88
NJD002173276	American Cyanamid	(Bound Brook)	11/08/88	
NJD002155448	Cessna Aircraft	09/30/97		
✓ NJD002141950	CP Chemical	09/30/92		
NJD990753162	Coastal Eagle Point	Oil	12/26/91	
V/NJD081982902	Chevron *	03/30/94		
<b>▼</b> NJD002385730	Dupont (Deepwater)	*	11/08/89	
✓ NJD002173946	DuPont (Pompton Lakes) 06/29/92			
NJD079320495	Federated Metals	09/25/95		
NJD003951985	Griffin Pipe*	09/30/94		
NJD002521961	Hercules (Parlin)		02/06/90	
NJD001787944	ICI Americas *		12	/27/89
NJD001519107	Interlake *	05/01/90		
<b>✓</b> NJD002325074	Lenox	09/25/92 NJD0	79303020	LCP
Çhemicals *	10/07/91			
✓NJD001317064	Merck		12/27/90	
NJD001700707	Monsanto*	09/29/94		
NJD002147023	Novartis Pharmaceu	itical * 03/28/		
NJD068715424	Ortho Diagnostics *	_	09/30/88	
NJD980753875	Pennwalt (Thorofare	7	3/24/89	
NJD053288239	Rollins Environmental Services * 03/31/89			
NJD002182897	Safety-Kleen (Linden)			
NJD986579449	Square D	06/30/93		
/ NJD002349751	Struthers-Dunn	06/29/92		
✓ NJD001890300	Tenneco			2/17/90
NJD002357242	Trane	0	9/06/91	

<sup>\*</sup> EPA Leads

NJD002325074

From:

Frank Faranca <ffaranca@dep.state.nj.us>

To:

RTPMAINHUB.INTERNET("John\_Kinkela@b-f.com")

Date: Subject: 5/18/98 4:25pm Lenox South Site

\*\* High Priority \*\*

Hi John,

What is the current status of the remediation activities at the South Site? Don't forget to notify Daryl when you are ready to collect the ground water samples.

Frank

CC:

R2NYC06.R2DEPDIV(PARK-ANDY),RTPMAINHUB.INTERNET("D...

NJD 002325074

From:

Frank Faranca <ffaranca@dep.state.nj.us>

To:

R2NYC06.R2DEPDIV(PARK-ANDY)

Date:

6/1/98 2:27pm

Subject:

South Site Status Report

\*\* High Priority \*\*

Daryl & Andy,

Attached please find a status update provided by Lenox.

Please call if you have any questions.

Frank

CC:

RTPMAINHUB.INTERNET("DCLARK@dep.state.nj.us")

Mr. Dan Galletta Manager of Real Estate Development Ole' Hansen & Sons 523 Leipzig Ave. PO Box 1020 Cologne, NJ 08213

Re: Current status of South Site Cleanup

Dear Mr. Galletta,

Per your request Lenox is updating its previous progress letter to inform you of the status of work at the South Site. As you know, Lenox refers to the future site of the Blue Heron Pines East, Continuing Care Retirement Community (CCRC) as the "South Site". Lenox has completed approximately 98% of the site cleanup plan approved by the New Jersey Department of Environmental Protection (NJDEP).

As Lenox previously advised you, it was our intent to complete the approved scope of work prior to the end of December 1997. However, there was a possibility that weather conditions would delay the work well into the winter, if not until late spring or early summer. As I am sure you are aware from your own projects and operations, heavy fall, winter and early spring rains severely limited operations. Lenox pumped over 3,500,000 gallons of storm and groundwater out of the pit between December and May in order to continue working on the site and dry the bottom of the pit. The May 8th through May 12 storm brought the total rainfall during the first ten days of May to 5.5 inches and refilled the pit to the highest levels seen during the winter. At this time work on the site has ceased as the high groundwater levels render it nearly inaccessible and there is literally no room to work in the dry portions. However, water levels are receding quite quickly and it is conceivable that work will resume by late June.

During the winter and early spring Lenox completed most of the decontamination and certification work outlined in our previous letter as follows:

Excavation and decontamination of the pit was completed by dewatering portions of the pit as needed. Only the foot of the south wall of the pit about 100 feet long by six feet wide and a small section of one of the utility pipes remain to be decontaminated when groundwater levels drop.

Another 950 tons of contaminated materials were shipped off-site for proper disposal. Materials with low levels of contamination, which were excavated during decontamination of the

pit, were screened to remove larger pieces of china, plaster, and other construction debris such as stumps, logs, lumber, bricks, concrete and asphalt. These materials were recycled or properly disposed.

The old railroad bed was broken up and screened to remove ballast and concrete for recycle. The screening equipment has now been removed from the site.

After decontamination, 39 points designated by the NJDEP Case Manager were sampled and certified to meet the NJ proposed soil cleanup standards.

Until the groundwater levels drop, final decontamination cannot be completed. All that remains to be done is:

decontaminate the foot of the south wall of the pit and a small area around one utility pipe; process an estimated 1,600 cubic yards of fine screened material;

remove, decontaminate and certify the equipment decontamination pad;

sample four geoprobe groundwater evaluation wells under NJDEP observation to demonstrate that groundwater at the site has not been impacted and submit the final project report.

As you can see, the remaining scope of work is very limited. We will need thirty to sixty days of low groundwater and relatively dry conditions to mobilize, perform the work and demobilize. We will then submit the final project report, which is being prepared in the interim, to obtain a "No Further Action" (NFA) letter from the NJDEP.

Lenox will keep you posted on its progress, Please do not hesitate to contact me at (609) 965-8272, if you have any further questions about the work

Sincerely yours,

John F. Kinkela Director of Environmental Engineering

JFK/jfk

cc w/o encls: M. Chinn

L Fantin

ANDY PARK

To:

**TORNICK-BARRY** 

Date:

5/14/98 10:20am

Subject:

FOIA Request -Reply

Lenox China would meet the criteria. Treated groundwater goes to infiltration trenches for infiltration back to the aquifer.

#### >>> BARRY TORNICK 05/13/98 11:33am >>>

We received a request for information on facilities that have RCRA permits and that have a remedy selected to pump and treat GW and reinject it back into the aquifer. Attached is the list of HSWA permits issued. Review the list and identify facilities assigned to you that meet the above criteria. Please respond by May 19 that you either have any facilities that meet the criteria or that you don't.

6/2/98 ROC W/ David Abrina-Garcia

\* State has their own documentation approving the remedy.

\* The b-ISWA MOD is the GPA Locument of approving the venedy.

Andy Park



# State of New Jersey

Christine Todd Whitman Governor

Department of Environmental Protection

Robert C. Shinn, Jr. Commissioner

August 10, 1998

Mr. Dan Galletta Manager of Real Estate Development Ole' Hansen & Sons 523 Leipzig Ave. PO Box 1020 Cologne, NJ 08213

Re:

Lenox China Incorporated

Status of South Site Cleanup (Block 453, Lot 1)

Galloway Township, Atlantic County

Dear Mr. Galletta,

Thank you for your letter dated August 6, 1998 requesting the status of the Lenox China (Lenox) South Site. On October 11, 1995, the New Jersey Department of Environmental Protection (Department) executed a Memorandum of Agreement (MOA) with Lenox to address the above referenced site. The intent of this MOA was to allow Lenox to conduct a remedial action with the oversight of the Department. Lenox has completed approximately 99% of the remedial action work plan approved by the Department on October 24, 1996.

The schedule for the remaining work is the following:

Decontaminate an additional 500 cubic yards of material by August 21; Remove, decontaminate and certify the equipment decontamination pad by August 28; Install and sample four temporary geoprobe groundwater evaluation wells under Department observation to demonstrate that groundwater at the site has not been impacted by September 1, 1998; and Submit the final Remedial Action (RA) Report by October 15 for Department review.

The Department will review the RA report and if deemed acceptable, will then issue a "No Further Action" (NFA) letter to close this remediation project. If the remediation proceeds according to plan, the NFA letter will be issued in early November 1998.

If you have any further questions, please do not hesitate to contact me at (609) 984-4071

Sincerely,

Frank Faranca, Project Manager

Bureau of Federal Case Management

cc John Kinkela, Lenox

Andrew Park, USE: A

Daryl Clark, NJDEP EGWPA

13A NOD002325074 9/22/98

- Call from Denise Soto X4319

- Returned her call & left a message on her machine.

Roc W/ Denise Soto

\* RCRA units closed

\* CA under RCRA and State MOA.

AP

ANDY PARK

To:

R2NYC04.R2OSWSF1(MOYIK-CATHY)

Date:

9/21/98 5:50pm

Subject:

Lenox China, Inc. NJD002320574 - Hogh Priority. Good NPL candidate. -Forwarded -Reply

I am the RCRA project manager for Lenox China that is located at Tilton Road, Pomona, NJ. The EPA RCRA and the NJDEP have been actively involved in site remedial investigations and remedies and we are about to make a CA750 determination for the site. Therefore, I believe it is inappropriate that the site be listed on NPL.

Based on the description you have provided, your Lenox China seems to be the one that I am referring to. Because Superfund ID numbers are not necessarily same as RCRA ID numbers, I can not say for sure that we are talking about the same site. The RCRA ID number for the site is NJD002325074 which differs from yours by switched two digits. Please contact me if necessary, (my extension X4184).

>>> CATHY MOYIK 09/21/98 03:43pm >>> Ray,

Attached is information on a site that was not included on the original list of sites from the audit. There will be couple more to look at but this one looks like it is one we might want to send someone out to look at asap. Please let us know what you think. Thanks!

CC:

rbasso, btornick

**BARRY TORNICK** 

To:

**APark** 

Date:

9/21/98 4:50pm

Subject:

Lenox China, Inc. NJD002320574 - Hogh Priority. Good NPL candidate. -Forwarded -Forwarded

Please confirm that this is our Lenox China. If it is, tell Ray that we have a HSWA permit, that NJDEP has also been involved for years and that we are ready to make a CA750 determination. Therefore, it is inappropriate that it be added to the NPL.

If Superfund really wants an appropriate candidate, maybe they can consider Pittsburgh Metals.

CC:

RBasso

**CATHY MOYIK** 

To:

R2NYC06.R2DEPDIV.BASSO-RAY, R2NYC06.R2DEPDIV.POETZ...

Date:

9/21/98 3:43pm

Subject:

Lenox China, Inc. NJD002320574 - Hogh Priority. Good NPL candidate. -Forwarded

Ray,

Attached is information on a site that was not included on the original list of sites from the audit. There will be couple more to look at but this one looks like it is one we might want to send someone out to look at asap. Please let us know what you think. Thanks!

CC:

MALLECK-JOHN, SOTO-DENISE, CONETTA-BENNY

**DENISE SOTO** 

To:

Moyik-Cathy, Conetta-Benny

Date:

9/4/98 2:13pm

Subject:

Lenox China, Inc. NJD002320574 - Hogh Priority. Good NPL candidate.

This is one of the EPI-PA RCRA site. The site soil and groundwater is contaminated with TCE, lead, as well as other contaminants. There is a known trichloroethylene plume migrating from the site. Groundwater is the only source of drinking water in the area. The reports indicate that the site poses a high environmental concern.

If RCRA is not addressing the site, we should take a look at it. The report mentions that the NJDEP groundwater division was somewhat. Nonetheless, it is not known if the soil contamination is been addressed by NJDEP. The site is a 56-acre property.

Lenox China, Inc is the main Responsible Party in a nearby (~0.5mi) NPL site contaminated with the same pollutant.

I looked into RCRIS info database and it seems that this site is a Large Quantity Generator.

**BARRY TORNICK** 

To: Date: NJ, DWalker 9/18/98 4:08pm

Subject:

Acting Section Chief

I will be on A.L. Monday and Tuesday and in Trenton at the quarterly RCRA meeting with NJDEP on Wednesday. John will be acting on Monday and Anthony will be acting on Tuesday and Wednesday.

CC:

RBasso

**ANDY PARK** 

To:

btornick

Date:

1/12/99 11:49am

Subject:

Lenox-CA750

Frank Faranca, NJDEP Case Manager, and Daryl Clark, NJDEP Hydrogeologist informed me that the Lenox CA750 checklist provided to NJDEP during the 1/6/99 RCRA Quarterly Meeting is factually correct.

BARRY TORNICK

To:

PARK-ANDY

Date:

2/23/99 12:13pm

Subject:

Lenox -Reply -Forwarded -Reply

Get the relevant information together and let's talk to Ray and decide how to proceed.

>>> ANDY PARK 02/22/99 02:52pm >>>

Attached is a response from Frank Faranca, NJDEP, agreeing that Lenox knew about the South Site much earlier than their 10/96 notification to him.

ANDY PARK

To:

btornick

Date:

2/22/99 2:52pm

Subject:

Lenox -Reply -Forwarded

Attached is a response from Frank Faranca, NJDEP, agreeing that Lenox knew about the South Site much earlier than their 10/96 notification to him.

**RAY BASSO** 

To:

R2NYC06.R2DEPDIV(PARK-ANDY), TORNICK-BARRY

Date:

2/12/99 11:58am

Subject:

Possible Enforcement Action at Lenox -Reply -Reply

Guts, stay on top of this one. I'd like to DECA going on this if it is warranted

Frank Faranca <ffaranca@dep.state.nj.us>

To:

R2NYC06.R2DEPDIV(PARK-ANDY)

Date:

2/10/99 4:51pm

Subject:

Lenox -Reply

\*\* High Priority \*\*

Hi Andy, I checked our records and the first time that Lenox notified the State of the South Site was in a meeting held in Trenton on October 9, 1996. Subsequently an amendment to the existing MOA was submitted to address the South Site and was executed on November 27, 1996. I examined the Remedial Action Work Plan as you have suggested and have also come to the conclusion that Lenox knew about the South site as early as 1954 when they first began dumping waste plaster molds and broken china in the pit. FYI Frank

**ANDY PARK** 

To:

rtpmainhub.internet:("ffaranca@dep.state.nj.us")

Date:

2/10/99 2:46pm

Subject:

Lenox

\*\* Confidential \*\*

#### **Confidential**

#### Frank,

While reviewing the South Site remediation report, it has come to my attention that Lenox knew about the existence of the area in August 1989 or possibly earlier. Somehow, this unit was never got into the HSWA permit, issued in 1992. The PA/SI report, prepared by NJDEP for EPA around in 1986, did not identify the unit nor Lenox never informed us of its existence during the preparation of the 1992 HSWA permit. Please let me know if you have any other explanations. Thanks.

Andy

bec: BT

**BARRY TORNICK** 

To:

PARK-ANDY

Date:

2/10/99 2:07pm

Subject:

Possible Enforcement Action at Lenox -Reply

Yes, look into it further and ask Frank whether he has any insight into it. If we can document that the SWMU was not in our permit and that Lenox knew about it, there would seem to be a violation of our permit. It would seem obvious that they knew about it if they were monitoring it. Their eventual notification to us would also indicate that they were aware of their responsibility to notify us, although they could be in violation even if they claim that they were not aware of the requirement.

Keep me informed of this.

#### >>> ANDY PARK 02/10/99 12:47pm >>>

While evaluating the South Site remediation report, it has come to my attention that Lenox has known the existence of the SWMU much earlier than their October 1996 notification to us. The information tells us that they knew about it in August 1989 at the latest. The report says that Lenox utilized it beginning around 1954 up to late 1970s and implies that they had to address it because the owner of the property wanted to develop the area for a retirement center.

NJDEP prepared RFA for us around 1986 and we finalized it in 1989. The HSWA permit was issued in 1992 and was modified for the partial site remediation in March 1997. Based on the information available to me, I am not certain whether it is due to NJDEP's incompleteness in their performing PA and VSI, Lenox's evasiveness, or both.

٤

I suggest that this be further looked into for possible enforcement action.

CC:

RBasso

**ANDY PARK** 

To:

btornick

Date:

2/10/99 12:47pm

Subject:

Lenox

While evaluating the South Site remediation report, it has come to my attention that Lenox has known the existence of the SWMU much earlier than their October 1996 notification to us. The information tells us that they knew about it in August 1989 at the latest. The report says that Lenox utilized it beginning around 1954 up to late 1970s and implies that they had to address it because the owner of the property wanted to develop the area for a retirement center.

NJDEP prepared RFA for us around 1986 and we finalized it in 1989. The HSWA permit was issued in 1992 and was modified for the partial site remediation in March 1997. Based on the information available to me, I am not certain whether it is due to NJDEP's incompleteness in their performing PA and VSI, Lenox's evasiveness, or both.

I suggest that this be further looked into for possible enforcement action.

Referral of Potential RCRA Violations
in the Permit and Corrective Action Implementation Processes For EPA-Lead Sites RCB

#### Introduction (5 min.)

Discussion does not include State-lead sites.

Reasons for referral to RCRA Compliance Branch

- Senior management concern that corrective action sites may be delaying cleanup by "playing the system"
- Large resource output by Agency in developing permits/Orders and need to consider enforcement as a "tool" in moving the permit and corrective action process forward
- Need for level playing field and to avoid the appearance of granting favors to companies with which EPA has established ongoing working relationships
- Potential for investigation by the Office of the Inspector General

### RCRA Enforcement Response Policy (5 min.)

Violation Types and Definitions

- Significant Non-Compliers (SNC) definition includes persons who deviate substantially form the terms of a permit or order, as well as chronic/recalcitrant violators.
- All others are considered Secondary Violators (SV). Typically first time violators.
- ERP requires specified enforcement response

Enforcement Response Poliszy NOVs, NODs, Complaints

- Minimum response for a Significant Non-Complier is an Administrative Complaint.
- Minimum response for a Secondary Violator is a NOV
- RPB should think of RCB as a resource

### **RCRA Compliance Branch**

- Part of DECA
- 26 staff total, 20 of which are inspectors

## Specific Referral Situations (30 min.)

\* See Chart \*

Permit, Corrective Action, and Closure Implementation

Technically Inadequate Submittals

Late or No Submittals

RPB should be aware that these violations are usually invisible to RCB

#### Documentation (5 min.)

Establishing a record of recalcitrance

- Importance of creating a paper trail to support settlement and administrative Hearing process
- Relation to Significant Non-Complier definition
- RPB should be careful not to inadvertently sabotage future enforcement actions by allowing facilities to violate "informally"
- RPB should consider inviting RCB staff to important meetings as a means of letting the facility know that the deadlines and requirements set by EPA are to be taken seriously

#### Discussion/Questions (15 min.)

Violation	Action	
Schedule > 10 days late	Referral to RCB for issuance of NOV or Complaint	
Inadequate Submittal Minor - First Instance	RPB issuance of NOD	
- Second Instance	Referral to RCB for issuance of NOV	
Major - First Instance	Referral to RCB for issuance of NOV	
- Second Instance	Referral to RCB for issuance of Complaint	

**NICOLETTA DIFORTE** 

To:

**RPB** 

Date:

1/12/99 2:21pm

Subject:

Compliance training

On Wed, 1/27 from 10-12, we will be holding training for permitting and CA RPMs. The purpose of the training is to set out procedures for determining when and how issues should be referred to RCB. It will be held in the large conf room on this floor. All those with permitting and CA responsibilities should plan on attending. I will forward the agenda to you shortly.

CC:

R2NYC02.R2DECDIV.MEYER-GEORGE, R2NYC02.R2DECDIV.GR...

They will do statistical analysis

of data collected from the forongraduit

wells and compare them to the

standards (10 ppb lead & 36.7 ppb

Fine).

Andy Park

Frank Faranca <ffaranca@dep.state.nj.us>

To:

RTPMAINHUB.INTERNET("DCLARK@dep.state.nj.us")

Date:

11/18/98 7:34am

Subject:

**EPA** questions on Lenox CEA

\*\* High Priority \*\*

Hi Daryl,

I got a call from Andy yesterday. His management was asking several questions about the CEA and he did not have the answers. Specifically, Andy wanted to know what the compliance wells would be for the CEA. I believe that it would be Monitor wells 75 and 79A. However, there were elevated unfiltered zinc concentrations in the Jan. 97 and July 97 sampling round, well above the background concentration of 36.7 ppb (see June 30, 1998 document). I would assume that the statistical analysis performed on the data would indicate that this is NOT significant??? Is that your conclusion as well? Please advise. Please copy Andy on your response. Thanks

CC:

R2NYC06.R2DEPDIV(PARK-ANDY)



# State of New Jersey

Christine Todd Whitman Governor

Department of Environmental Protection

Robert C. Shinn, Jr. Commissioner

April 18, 2000

**CERTIFIED MAIL** RETURN RECEIPT REQUESTED NO. Z456 933 300

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

TCE Recovery System Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department), the U.S. Environmental Protection Agency (EPA) met with Lenox representatives on Wednesday, April 5, 2000 to discuss the TCE remediation system at the Lenox China Facility in Galloway Township, Atlantic County. As a result of that meeting, there were five general conclusions reached by all the parties, which are the following:

1. Lenox will be providing EPA and the Department information regarding the extension of the water lines to the homeowners in the immediate area, east of the facility.

2. The Department would be providing Lenox with a daily average pumping rate to be achieved for the TCE recovery system each month.

3. All of the parties will be monitoring the future data on a quarter by quarter basis to determine if any significant changes occur.

4. Lenox will implement a response plan to reestablish approximate initial flows in the system and report the results to the regulatory agencies.

5. The Johnson-Ettinger Air Model was applied to the site-specific data at the Lenox facility and was determined not to be a problem.

The reason for this correspondence is to memorialize the above and to articulate the Department's response regarding item two above.

The Department has evaluated the historical pumping trend and has determined that Lenox may propose an Average Daily Volume for the treatment system that will adequately capture the TCE plume. This figure will be reported in the "Pomona DGW and TCE Quarterly Monitoring Report" and will be reported as an average for each month (i.e., total volume pumped during each month, divided by the number of days contained within each month). Lenox may propose the daily volume number after the Lenox response plan referenced in item 4 above is

implemented. If Lenox fails to meet the average daily volume for any given month, the following will need to be reported:

1. Lenox shall provide supporting information to show that the decrease in pumping has not affected the capture zone of the recovery wells; and

2. Lenox shall demonstrate that either the system is working satisfactorily or if not, indicate how Lenox will return the volume to the proposed daily volume.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Project Manager Bureau of Case Management

C: Andrew Park, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA

**Document Transmittal Form** Lenox China Facility Name Date of document / EPA ID Number ルガ Category <u>Ba</u> For "Correspondence" include: To <u>Louis</u> <u>Fantin</u>, <u>Lenox</u> From <u>Frank Farance</u>, <u>NJD</u> For "Other" category include: Description \_ For "Reports" include: Title \_\_\_\_\_ Author Originated by Other Federal Facility\_\_\_\_ Confidential (Non CBI) \_\_\_\_ (include page #s\_-\_) FOIA Exempt Project Manager Signature\_



# State of New Jersey

Christine Todd Whitman Governor

Department of Environmental Protection

Robert C. Shinn, Jr. Commissioner

July 10, 2000

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 2 754 589 433

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

TCE Recovery System Response to Comments

Galloway Township, Atlantic County

 $\bigcirc$ 

The New Jersey Department of Environmental Protection (Department) received the above referenced document prepared by Gannett Fleming, Inc. on behalf of Lenox Incorporated, dated May 19, 2000. The subject document responds to the Department's April 18, 2000 letter regarding performance of the TCE pump-and-treat system located at the Lenox facility. The Department's letter summarized conclusions and agreements reached during an April 8, 2000 meeting between representatives of Lenox and their consultants, NJDEP and EPA. Two of the topics of discussion that required a formal response by Lenox included the agreement to provide information regarding the extension of waterlines to downgradient residents and the NJDEP's requirement that an Average Daily Volume for the pumping of the recovery wells be determined. This Average Daily Volume would be the minimum pumping volume required to capture the TCE plume.

The Lenox provided maps and sketch show the locations of residences whose potable wells were sampled during the remedial investigation. The results of the sampling are also included in the document.

The ground water recovery system capture zone was remodeled using the analytical flow model TWODAN. Various pumping rates were evaluated to determine the minimum pumping rate required to obtain adequate capture, where adequate capture refers to the line of recovery wells having overlapping capture zones. The effect of recharge on the capture zone was also evaluated in the model. The results indicate that an average pumping rate of 31 gpm per well would provide adequate capture. With 6 recovery wells, the Average Daily Volume proposed by Lenox is approximately 268,000 gallons. An evaluation of net recharge showed that the radius of the capture zone would vary depending on the net recharge rate, with higher recharge rates decreasing the capture radius and lower recharge rates increasing the capture radius.

Based on the information in the document, the Department has the following comments:

- 1. The information regarding the downgradient residences is conditionally acceptable. Lenox must amend the document by specifically stating whether or not those residences listed in the document have been placed on public water.
- 2. The model results are acceptable. Lenox, however must indicate whether the recovery system pumping rate will be the minimum (31 gpm per well) necessary to achieve capture or if it will be set at a higher rate. While the Department accepts the model results, the Department prefers that a pumping rate higher than the minimum be set as a safety factor to offset any potential problems such as high recharge due to precipitation events. Lenox must indicate whether or not a pumping rate higher than the minimum will be designated for the system.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Project Manager Bureau of Case Management

C: Andrew Park, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA

Rec/d 4/2/02



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540 Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

#### VIA CERTIFIED MAIL

March 26, 2002 File #35221.001

Keith Phillips
Atlantic County Division of Public Health
Environmental Health Unit
201 South Shore Road
Northfield, New Jersey 08225-2370

Re:

Lenox China

Residential Well Sampling Results

Dear Mr. Phillips:

Enclosed for your review are laboratory results from the potable well sampling performed by Gannett Fleming on behalf of Lenox China on March 19, 2002. Please forward the results to the homeowners listed below. Sample identifications and corresponding homeowner addresses are as follows:

RESW-1

Mr. and Mrs. Samuel Burns – 360 South Mannheim Avenue

1.4APS TCE

Egg Harbor, NJ 08215

RESW-2

Mr. Cecil Heyes – 357 South Mannheim Avenue Egg Harbor, NJ 08215 1.3 ppb bonzone

RESW-3

Ms. Linda Paulmeno – 353 South Mannheim Avenue

(P.O. Box 69, Cologne, NJ 08213)

TB

QA/QC Trip Blank

Please call John Kinkela, Lenox China at (609) 965-8272 to discuss the sampling results.

Very truly yours,

GANNETT FLEMING, INC.

Rober Bunca

Robyn Berner

Project Hydrogeologist

Enc.

## **Gannett Fleming**

Frank Faranca, NJDEP cc: Andrew Park, USEPA John Kinkela, Lenox China Jim Barish, Gannett Fleming Gary Berman File

Client Sample ID: RESW-1

Lab Sample ID:

N10622-1

DW - Drinking Water

Matrix: Method: Project:

EPA 524.2 REV 4.1

Lenox, Pomona, NJ

Date Sampled: Date Received: 03/19/02

03/19/02

Percent Solids: n/a.

ſ <u>`</u>	File ID	DE	Analyzed
L			

Run #1 Run #2

**Analytical Batch Prep Date** Вy **Prep Batch** 03/20/02 YL n/a n/a VD2190 D51870.D

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-l	Acetone	ND:		1.1	ug/l
78-93-3	2-Butanone	ND		0.65	ug/l
71-43-2	Benzene	ND	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND		0.27	ug/l
74-97-5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.33	ug/l
98-06-6	tert-Butylbenzene	ND		0.21	ug/l
75-15-0	Carbon disulfide	ND		0.47	ug/l
108-90-7	Chlorobenzene	ND	50	0.28	ug/l
75-00-3	Chloroethane	ND		0.47	ug/l
67-66-3	Chloroform	5.0		0.30	ug/l
74-87-3	Chloromethane	ND		0.46	ug/l
95-49-8	o-Chlorotoluene	ND		0.28	ug/l
106-43-4	p-Chlorotoluene	ND		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	1,1-Dichloroethane	ND	50	0.35	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.39	ug/l
563-58-6	1,1-Dichloropropene	ND		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050	0.26	ug/l
107-06-2	1,2-Dichloroethane	ND	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	ND	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-1	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ND		0.39	ug/l
75-71-8	Dichlorodifluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	ug/l
95-50-1	o-Dichlorobenzene	ND	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	ND	75	0.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l
					<del>-</del>

ND = Not detected

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B - Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Client Sample ID: RESW-1 Lab Sample ID:

N10622-1

DW - Drinking Water EPA 524.2 REV 4.1

Date Sampled: 03/19/02 Date Received: 03/19/02 Percent Solids: n/a

Method: Project:

Matrix:

Lenox, Pomona, NJ

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l
100-41-4	Ethylbenzene	ND	700	0.31	ug/l
87-68-3	Hexachlorobutadiene	ND		0.39	ug/l
110-54-3	Hexane	ND		0.71	ug/l
591-78-6	2-Hexanone	ND		0.40	ug/l
98-82-8	lsopropylbenzene	ND		0.31	ug/l
99-87-6	p-Isopropyltoluene	ND		0.26	ug/l
75-09-2	Methylene chloride	ND	3.0	0.39	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	70	0.26	ug/l
108-10-1	4-Methyl-2-pentanone	ND		0.49	ug/l
91-20-3	Naphthalene	ND	300	0.44	ug/l
103-65-1	n-Propylbenzene	ND		0.24	ug/l
100-42-5	Styrene	ND	100	0.15	ug/l
630-20-6	1,1,1,2-Tetrachloroethane	ND .		0.38	ug/l
71-55-6	1,1,1-Trichloroethane	ND	30	0.34	ug/l
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.34	ug/l
87-61-6	1,2,3-Trichlorobenzene	ND		0.51	ug/l
96-18-4	1,2,3-Trichloropropane	ND		0.41	ug/l
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.32	ug/l
95-63-6	1,2,4-Trimethylbenzene	ND		0.18	ug/l
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l
108-88-3	Toluene	ND	1000	0.26	ug/l
79-01-6	Trichloroethylene	1.4	1.0	0.39	ug/l
75-69-4	Trichlorofluoromethane	ND		0.21	ug/l
75-01-4	Vinyl chloride	ND	2.0	0.32	ug/l
	m,p-Xylene	ND		0.31	ug/l
95-47-6	o-Xylene	ND		0.32	ug/l
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run#	2	Limits
2199-69-1	1,2-Dichlorobenzene-d4	105%			66-113%
460-00-4	4-Bromofluorobenzene	95%			57-111%

Client Sample ID: RESW-2

Lab Sample ID:

N10622-2

Matrix:

DW - Drinking Water

Method: Project:

EPA 524.2 REV 4.1 Lenox, Pomona, NJ

Date Sampled: 03/19/02

Date Received: 03/19/02

Percent Solids: n/a

	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	<b>Analytical Batch</b>
Run #1	D51871.D	1	03/20/02	YL	n/a	n/a	VD2190

Run #2

**VOA List** 

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-1	Acetone	ND		1.1	ug/l
78-93-3	2-Butanone	ND		0.65	ug/l
71-43-2	Benzene	1.3	1.0	0.25	ug/l —
108-86-1	Bromobenzene	ND		0.27	ug/l
74-97-5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND:		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.33	ug/l
98-06-6	tert-Butylbenzene	ND		0.21	ug/l
75-15-0	Carbon disulfide	ND		0.47	ug/l
108-90-7	Chlorobenzene	ND	50	0.28	ug/l
75-00-3	Chloroethane	ND		0.47	ug/l
67-66-3	Chloroform	0.72		0.30	ug/l
74-87-3	Chloromethane	ND		0.46	ug/l
95-49-8	o-Chlorotoluene	ND		0.28	ug/l
106-43-4	p-Chlorotoluene	ND		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	1,1-Dichloroethane	ND	50	0.35	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.39	ug/l
563-58-6	1,1-Dichloropropene	ND		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050	0.26	ug/l
107-06-2	1,2-Dichloroethane	ND	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	ND	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-1	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ND		0.39	ug/l
75-71-8	Dichlorodifluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	ug/l
95-50-1	o-Dichlorobenzene	ND	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	0.26	15	0.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l
	.,				-

ND = Not detected

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

8

Client Sample ID: RESW-2

Lab Sample ID: N10622-2

Matrix: Method: DW - Drinking Water EPA 524.2 REV 4.1

Project: Lenox, Pomona, NJ Date Sampled: 03/19/02 Date Received: 03/19/02

Percent Solids: n/a

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l
100-41-4	Ethylbenzene	ND	700	0.31	ug/l
87-68-3	Hexachlorobutadiene	ND		0.39	ug/l
110-54-3	Hexane	ND		0.71	ug/l
591-78-6	2-Hexanone	ND		0.40	ug/l
98-82-8	Isopropylbenzene	ND		0.31	ug/l
99-87-6	p-Isopropyltoluene	ND		0.26	ug/l
75-09-2	Methylene chloride	ND	3.0	0.39	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	70	0.26	ug/l
108-10-1	4-Methyl-2-pentanone	ND		0.49	ug/l
91-20-3	Naphthalene	ND	300	0.44	ug/l
103-65-1	n-Propylbenzene	ND		0.24	ug/l
100-42-5	Styrene	ND	100	0.15	ug/l
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.38	ug/l
71-55-6	l, l, l-Trichloroethane	ND	30	0.34	ug/l
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.34	ug/l
87-61-6	1,2,3-Trichlorobenzene	ND		0.51	ug/l
96-18-4	1,2,3-Trichloropropane	ND		0.41	ug/l
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.32	ug/l
95-63-6	1,2,4-Trimethylbenzene	ND		0.18	ug/l
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l
108-88-3	Toluene	ND	1000	0.26	ug/l
79-01-6	Trichloroethylene	NĐ	1.0	0.39	ug/l
75-69-4	Trichlorofluoromethane	ND		0.21	ug/l
75-01-4	Vinyl chloride	ND	2.0	0.32	ug/l
	m,p-Xylene	ND		0.31	ug/l
95-47-6	o-Xylene	ND		0.32	ug/l
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run#	2	Limits
2199-69-1	1,2-Dichlorobenzene-d4	108%			66-113%
460-00-4	4-Bromofluorobenzene	97%			57 111%

Client Sample ID: RESW-3

Lab Sample ID:

N10622-3

DW - Drinking Water

Method: Project:

Matrix:

EPA 524.2 REV 4.1 Lenox, Pomona, NJ

Date Sampled: 03/19/02

Date Received: 03/19/02 Percent Solids: n/a

Run #1 Run #2 File ID D51873.D DF

Analyzed

03/20/02

Ву YL **Prep Date** n/a

**Prep Batch** 

**Analytical Batch** 

n/a VD2190

**VOA List** 

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-l	Acetone	ND		1.1	ug/l
78-93-3	2-Butanone	ND		0.65	ug/l
71-43-2	Benzene	ND	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND		0.27	ug/l
74-97-5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.33	ug/l
98-06-6	tert-Butylbenzene	ND.		0.21	ug/l
75-15-0	Carbon disulfide	ND		0.47	ug/l
108-90-7	Chlorobenzene	ND	50	0.28	ug/l
75-00-3	Chloroethane	ND		0.47	ug/l
67-66-3	Chloroform	3.1		0.30	ug/l
74-87-3	Chloromethane	ND		0.46	ug/l
95-49-8	o-Chlorotoluene	ND		0.28	ug/l
106-43-4	p-Chlorotoluene	ND		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	1,1-Dichloroethane	ND	50	0.35	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.39	ug/l
563-58-6	1,1-Dichloropropene	ND		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane		0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050		ug/l
107-06-2	1,2-Dichloroethane	ND	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	ND	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-L	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ND		0.39	ug/l
75-71-8	Dichloroditluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	นฐ/โ
95-50-1	o-Dichlorobenzene	N'D	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	ND	75	U.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l

ND = Not detected

E = Indicates value exceeds calibration range

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

10

Client Sample ID: RESW-3

Lab Sample ID: N10622-3

Matrix: Method:

Project:

DW - Drinking Water EPA 524.2 REV 4.1

Lenox, Pomona, NJ

Date Sampled: 03/19/02 Date Received: 03/19/02

Percent Solids: n/a

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units (	)
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l	
100-41-4	Ethylbenzene	ND	700	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND		0.39	ug/l	
110-54-3	Hexane	ND		0.71	ug/l	
591-78-6	2-Hexanone	ND		0.40	ug/l	
98-82-8	Isopropylbenzene	ND		0.31	ug/l	
99-87-6	p-Isopropyltoluene	ND		0.26	ug/i	
75-09-2	Methylene chloride	ND	3.0	0.39	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ИĎ	70	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone	ND		0.49	ug/l	
91-20-3	Naphthalene .	ND	300	0.44	ug/l	
103-65-1	n-Propylbenzene	ND		0.24	ug/l	
100-42-5	Styrene	ND	100	0.15	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.38	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	30	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.34	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND.		0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND		0.41	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.32	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND.		0.18	ug/i	
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1000	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.39	ug/l	
75-69-4	Trichlorofluoromethane	ND		0.21	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.32	ug/l	
	m,p-Xylene	ND		0.31	ug/l	
95-47-6	o-Xylene	ND		0.32	ug/l	
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run#	2	Limits	
2199-69-1	1,2-Dichlorobenzene-d4	103%			66-113%	
460-00-4	4-Bromotluorobenzene	97%			57-111%	

Client Sample ID: TB

Lab Sample ID:

N10622-4

Matrix:

DW - Drinking Water TB

Method:

EPA 524.2 REV 4.1

Date Sampled: 03/19/02 Date Received: 03/19/02

Percent Solids: n/a

Project:

Lenox, Pomona, NJ

	File ID
_	 

DF

Analyzed 03/20/02

Ву YL **Prep Date** 

Prep Batch

**Analytical Batch** 

VD2190 D51878.D n/a n/a Run #1 1

Run #2

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-1	Acetone	ND		1.1	ug/l
78-93-3	2-Butanone	ND		0.65	ug/l
71-43-2	Benzene	ND	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND		0.27	ug/l
74-97-5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.33	ug/l
98-06-6	tert-Butylbenzene	ND		0.21	ug/I
75-15-0	Carbon disulfide	ND		0.47	ug/l
108-90-7	Chlorobenzene	ND	50	0.28	ug/l
75-00-3	Chloroethane	ND		0.47	ug/l
67-66-3	Chloroform	ND		0.30	ug/l
74-87-3	Chloromethane	ND		0.46	ug/l
95-4 <del>9</del> -8	o-Chlorotoluene	ND		0.28	ug/l
106-43-4	p-Chlorotoluene	ND		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	1,1-Dichloroethane	ND	50	0.35	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.39	ug/t
563-58-6	1,1-Dichloropropene	ND		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050	0.26	ug/l
107-06-2	1,2-Dichloroethane	ND	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	ND	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-1	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ΝD		0.39	ug/l
75-71-8	Dichloroditluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	ug/l
95-50-1	o-Dichlorobenzene	ND	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	ND	75	0.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l

ND = Not detected

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Client Sample ID: TB

Lab Sample ID:

N10622-4

Matrix: Method: DW - Drinking Water TB EPA 524.2 REV 4.1

Project:

Lenox, Pomona, NJ

**Date Sampled:** 03/19/02 Date Received: 03/19/02

Percent Solids: n/a

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l
100-41-4	Ethylbenzene	ND .	700	0.31	ug/l
87-68-3	Hexachlorobutadiene	ND		0.39	ug/l
110-54-3	Hexane	ND		0.71	ug/l
591-78-6	2-Hexanone	ND		0.40	ug/l
98-82-8	Isopropylbenzene	ND		0.31	ug/l
99-87-6	p-Isopropyltoluene	ND		0.26	ug/l
75-09-2	Methylene chloride	ND	3.0	0.39	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	70	0.26	ug/l
108-10-1	4-Methyl-2-pentanone	ND ·		0.49	ug/l
91-20-3	Naphthalene	ND	300	0.44	ug/l
103-65-1	n-Propylbenzene	ND		0.24	ug/l
100-42-5	Styrene	ND	100	0.15	ug/l
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.38	ug/l
71-55-6	1,1,1-Trichloroethane	ND	30	0.34	ug/l
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.34	ug/i
87-61-6	1,2,3-Trichlorobenzene	ND		0.51	ug/l
96-18-4	1,2,3-Trichloropropane	ND		0.41	ug/l
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.32	ug/l
95-63-6	1,2,4-Trimethylbenzene	ND		0.18	ug/l
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l
108-88-3	Toluene	ND	1000	0.26	ug/l
79-01-6	Trichloroethylene	ND	1.0	0.39	ug/i
75-69-4	Trichlorofluoromethane	ND		0.21	ug/l
75-01-4	Vinyl chloride	ND	2.0	0.32	ug/l
	m,p-Xylene	ND		0.31	ug/l
95-47-6	o-Xylene	ND		0.32	ug/l
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run#	2	Limits
2199-69-1	1,2-Dichlorobenzene-d4	110%			66-113%
460-00-4	4-Bromotluorobenzene	100%			57-111%

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### Department of Human Services

Dennis Levinson County Executive

Division of Public Health 609/645-5935 FAX: 645-5931

Community Health/Clinical Services 609/645-5933 FAX: 272-8490

Environmental Health 609/645-5971 FAX: 645-5923

Substance Abuse Services 609/645-5932 FAX: 645-5890

Animal Shelter 609/485-2345 FAX: 484-0767

November 16, 2001

Mr. And Mrs. Samuel Burns 360 South Mannheim Avenue Egg Harbor, NJ 08215

Ref. #: E98453-1

Dear Mr. And Mrs. Burns:

At the request of Lenox China, review of the Volatile Organic Scan performed by Gannett Fleming, Inc. has revealed **trichloroethylene** in a water sample taken from your well in the concentration of 1.0 ug/l (also expressed as parts per billion). Although the result does not exceed the State Maximum Contaminant Level of 1.0 ug/l, it is present at a level which requires further consideration.

Lenox has offered to provide remediation to remove this contaminant based on cost assessment, and a representative of Lenox will contact you soon regarding your interest in having remedial action take place.

Please call me at once at (609) 645-5972 if you have any questions.

Sincerely,

Keith Phillips, R.E.H.S.

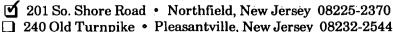
Keeth A. Phillips

Principal Sanitary Inspector

KP

c. John Kinkela, Lenox China
 Frank Faranca, NJDEP
 Andrew Park, USEPA
 Tracye McArdle, Health Officer
 Patricia Diamond, Deputy Health Officer





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# Department of Human Services

Dennis Levinson County Executive

Division of Public Health 609/645-5935 FAX: 645-5931

Community Health/Clinical Services 609/645-5933 FAX: 272-8490

Environmental Health 609/645-5971 FAX: 645-5923

Substance Abuse Services 609/645-5932 FAX: 645-5890

Animal Shelter 609/485-2345 FAX: 484-0767

November 16, 2001

Mr. Cecil Heyes 357 South Mannheim Avenue Egg Harbor, NJ 08215

Ref. #: E98453-2

Dear Mr. Heyes:

At the request of Lenox China, review of the Volatile Organic Scan performed by Gannett Fleming, Inc. has revealed that your water sample was within State Standards for the chemicals tested.

Due to the unpredictability of groundwater quality, it is always recommended that you test your water every four to six months for volatile organic chemicals and mercury.

Please call me at once at (609) 645-5972 if you have any questions.

Sincerely,

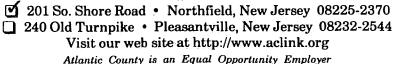
Keith Phillips, R.E.H.S. Principal Sanitary Inspector

Weeth A. Phillips

KP

c. John Kinkela, Lenox China
 Frank Faranca, NJDEP
 Andrew Park, USEPA
 Tracye McArdle, Health Officer
 Patricia Diamond, Deputy Health Officer











### Department of Human Services

Dennis Levinson County Executive

Division of Public Health 609/645-5935 FAX: 645-5931

Community Health/Clinical Services 609/645-5933 FAX: 272-8490

Environmental Health 609/645-5971 FAX: 645-5923

Substance Abuse Services 609/645-5932 FAX: 645-5890

Animal Shelter 609/485-2345 FAX: 484-0767

November 16, 2001

Ms. Linda Paulmeno 353 South Mannheim Avenue Egg Harbor, NJ 08215

Ref. #: E98453-3

Dear Ms. Paulmeno:

At the request of Lenox China, review of the Volatile Organic Scan performed by Gannett Fleming, Inc. has revealed that your water sample was within State Standards for the chemicals tested.

Due to the unpredictability of groundwater quality, it is always recommended that you test your water every four to six months for volatile organic chemicals and mercury.

Please call me at once at (609) 645-5972 if you have any questions.

Sincerely,

Keith Phillips, R.E.H.S.

Keeth A. Phil

Principal Sanitary Inspector

KP

c. John Kinkela, Lenox China
 Frank Faranca, NJDEP
 Andrew Park, USEPA
 Tracye McArdle, Health Officer
 Patricia Diamond, Deputy Health Officer



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GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540

Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

#### **VIA CERTIFIED MAIL**

October 12, 2001 File #35221.001

Tracye McArdle
Public Health Director
Atlantic County Department of Human Services
201 South Shore Road
Northfield, New Jersey 08225-2370

Re:

Lenox China

Residential Well Sampling Results

Dear Ms. McArdle:

I have enclosed for your review and distribution to the homeowners listed below the laboratory results from the September 10, 2001 potable well sampling performed by Gannett Fleming on behalf of Lenox China. Sample identifications and corresponding homeowner addresses are as follows:

RESW-1

Mr. and Mrs. Samuel Burns - 360 South Mannheim Avenue

RESW-2

Mr. Cecil Heyes – 357 South Mannheim Avenue

RESW-3

Ms. Linda Paulmeno - 353 South Mannheim Avenue

TB

QA/QC Trip Blank

Please call John Kinkela, Lenox China at (609) 965-8272 to discuss the sampling results.

Very truly yours,

GANNETT FLEMING, INC.

JAMES M. BARISH, CPG

Project Manager/Senior Hydrogeologist

Robyn Buner for

Enc.

cc:

Patti Diamond, ACDHS

Frank Faranca, NJDEP <sup>q</sup>Andrew Park, USEPA

John Kinkela, Lenox China

Gary Berman

By

**MMC** 

n/a

Client Sample ID: RESW-1

Lab Sample ID: E98453-1

File ID

D45635.D

Matrix: Method:

Project:

DW - Drinking Water EPA 524.2 REV 4.1

DF

Analyzed

09/19/01

Lenox, Pomona, NJ

Date Sampled: 09/10/01

Date Received: 09/11/01

Percent Solids: n/a

**Prep Batch Analytical Batch Prep Date** VD1969 n/a

Run #1 Run #2

**VOA List** 

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-1	Acetone	ND		1.0	ug/l
78-93-3	2-Butanone	ND		0.65	ug/l
71-43-2	Benzene	ND	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND		0.26	ug/l
74-97-5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.32	ug/l
98-06-6	tert-Butylbenzene	ND-		0.21	ug/l
75-15-0	Carbon disulfide	ND		0.47	ug/l ug/l ug/l ug/l ug/l ug/l-(PQV-(0)
108-90-7	Chlorobenzene	ND	50	0.28	ug/l mCV
75-00-3	Chloroethane	ND		0.47	ug/l (nb): (0)
67-66-3	Chloroform	5.0		0.30	ug/1 - ( \( \forall \)
74-87-3	Chloromethane	ND		0.46	ug/l `
95-49-8	o-Chlorotoluene	ND		0.28	ug/i
106-43-4	p-Chlorotoluene	ND		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	1,1-Dichloroethane	ND	50	0.35	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.39	ug/l
563-58-6	1,1-Dichloropropene	ND		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane		0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050		ug/l
107-06-2	1,2-Dichloroethane	ND	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	ND	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-1	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ND		0.39	ug/l
75-71-8	Dichlorodifluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	ug/l
95-50-1	o-Dichlorobenzene	ND	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	ND	75	0.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l

ND = Not detected

E = Indicates value exceeds calibration range

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Client Sample ID: RESW-1 E98453-1 Lab Sample ID:

DW - Drinking Water Matrix:

EPA 524.2 REV 4.1 Method: Project: Lenox, Pomona, NJ

Date Sampled: 09/10/01 Date Received: 09/11/01 Percent Solids: n/a

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l
100-41-4	Ethylbenzene	ND	700	0.31	ug/l
87-68-3	Hexachlorobutadiene	ND:		0.39	ug/l
110-54-3	Hexane	ND		0.71	ug/l
591-78-6	2-Hexanone	ND		0.40	ug/l
98-82-8	Isopropylbenzene	ND		0.31	ug/l
99-87-6	p-Isopropyltoluene	ND ·		0.26	ug/l
75-09-2	Methylene chloride	ND	3.0	0.39	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	70	0.26	ug/l
108-10-1	4-Methyl-2-pentanone	ND		0.48	ug/l
91-20-3	Naphthalene	ND	300	0.44	ug/l
103-65-1	n-Propylbenzene	ND		0.24	ug/l
100-42-5	Styrene	ND	100	0.15	ug/l
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.38	ug/l
71-55-6	1,1,1-Trichloroethane	ND	30	0.34	ug/l
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.34	ug/l
87-61-6	1,2,3-Trichlorobenzene	ND .		0.51	ug/l
96-18-4	1,2,3-Trichloropropane	ND		0.41	ug/l
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.32	ug/l
95-63-6	1,2,4-Trimethylbenzene	ND		0.18	ug/l
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l
127-18-4	Tetrachloroethylene	ND.	1.0	0.26	ug/l
108-88-3	Toluene	ND	1000	0.26	ug/l
79-01-6	Trichloroethylene	1.0	1.0	0.39	ug/l
75-69-4	Trichlorofluoromethane	ND		0.20	ug/l
75-01-4	Vinyl chloride	ND	2.0	0.32	ug/l
	m,p-Xylene	ND		0.31	ug/l
95-47-6	o-Xylene	ND:		0.32	ug/l
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run#	<i>‡</i> 2	Limits
2199-69-1	1,2-Dichlorobenzene-d4	93%			66-113%
460-00-4	4-Bromofluorobenzene	93%			57-111%

ND = Not detected

J = Indicates an estimated value

E = Indicates value exceeds calibration range

Client Sample ID: RESW-2 Lab Sample ID:

Matrix:

E98453-2

Method: Project:

DW - Drinking Water EPA 524.2 REV 4.1

Lenox, Pomona, NJ

Date Sampled: 09/10/01

Date Received: 09/11/01

Percent Solids: n/a

	File ID	DF	Analyzed	Ву	Prep Date	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	D45636.D	1	09/19/01	MMC	n/a	n/a	VD1969

#### **VOA List**

Run #2

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-1	Acetone	ND		1.0	ug/l
78-93-3	2-Butanone	ND		0.65	ug/l
71-43-2	Benzene	0.87	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND		0.26	ug/l
74-9 <b>7-</b> 5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.32	ug/l
98-06-6	tert-Butylbenzene	ND		0.21	ug/l
75-15-0	Carbon disulfide	ND		0.47	ug/l
108-90-7	Chlorobenzene	ND	50	0.28	ug/l
75-00-3	Chloroethane	ND		0.47	ug/l
67-66-3	Chloroform	0.62		0.30	ug/l
74-87-3	Chloromethane	ND		0.46	ug/l
95-49-8	o-Chlorotoluene	ND		0.28	ug/l
106-43-4	p-Chlorotoluene	ND		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	1,1-Dichloroethane	ND	50	0.35	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.39	ug/l
563-58-6	1,1-Dichloropropene	ND		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050		ug/l
107-06-2	1,2-Dichloroethane	ND	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	ND	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-1	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ND		0.39	ug/l
75-71-8	Dichlorodifluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	ug/l
95-50-1	o-Dichlorobenzene	ND	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	ND	75	0.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l

ND = Not detected

E = Indicates value exceeds calibration range

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Client Sample ID: RESW-2 Lab Sample ID: E98453-2

**Date Sampled:** 09/10/01 Matrix: DW - Drinking Water Date Received: 09/11/01 Method: EPA 524.2 REV 4.1 Percent Solids: n/a

Project: Lenox, Pomona, NJ

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l
100-41-4	Ethylbenzene	ND	700	0.31	ug/l
87-68-3	Hexachlorobutadiene	ND		0.39	ug/l
110-54-3	Hexane	ND		0.71	ug/l
591-78-6	2-Hexanone	ND		0.40	ug/l
98-82-8	Isopropylbenzene	ND		0.31	ug/l
99-87-6	p-Isopropyltoluene	ND		0.26	ug/l
75-09-2	Methylene chloride	ND	3.0	0.39	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	70	0.26	ug/l
108-10-1	4-Methyl-2-pentanone	ND	4	0.48	ug/l
91-20-3	Naphthalene	ND	300	0.44	ug/l
103-65-1	n-Propylbenzene	ND		0.24	ug/l
100-42-5	Styrene	ND	100	0.15	ug/l
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.38	ug/l
71-55-6	1,1,1-Trichloroethane	ND	30	0.34	ug/l
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.34	ug/l
87-61-6	1,2,3-Trichlorobenzene	ND		0.51	ug/l
96-18-4	1,2,3-Trichloropropane	ND :		0.41	ug/l
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.32	ug/l
95-63-6	1,2,4-Trimethylbenzene	ND		0.18	ug/l
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l
108-88-3	Toluene	ND	1000	0.26	ug/l
79-01-6	Trichloroethylene	ND	1.0	0.39	ug/l
75-69-4	Trichlorofluoromethane	ND		0.20	ug/l
75-01-4	Vinyl chloride	ND .	2.0	0.32	ug/l
	m,p-Xylene	ND		0.31	ug/l
95-47-6	o-Xylene	ND		0.32	ug/l
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run#	2	Limits
2199-69-1	1,2-Dichlorobenzene-d4	94%			66-113%
460-00-4	4-Bromofluorobenzene	86%			57-111%

ND = Not detected

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

Client Sample ID: RESW-3 E98453-3

Lab Sample ID: Matrix:

DW - Drinking Water

EPA 524.2 REV 4.1 Lenox, Pomona, NJ

**Date Sampled:** 09/10/01

Date Received: 09/11/01

Percent Solids: n/a

Project:

**Analytical Batch** Вy **Prep Date Prep Batch** DF Analyzed File ID MMCn/a VD1969 n/a 09/19/01 D45637.D Run #1

Run #2

Method:

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-1	Acetone	ND		1.0	ug/l
78-93-3	2-Butanone	ND		0.65	ug/l
71-43-2	Benzene	ND	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND		0.26	ug/l
74-97-5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.32	ug/l
98-06-6	tert-Butylbenzene	ND		0.21	ug/l
75-15-0	Carbon disulfide	ND		0.47	ug/l
108-90-7	Chlorobenzene	ND	50	0.28	ug/l
75-00-3	Chloroethane	ND		0.47	ug/l
67-66-3	Chloroform	2.8		0.30	ug/l
74-87-3	Chloromethane	ND		0.46	ug/l
95-49-8	o-Chlorotoluene	ND		0.28	ug/l
106-43-4	p-Chlorotoluene	ND		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	1,1-Dichloroethane	ND	50	0.35	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.39	ug/l
563-58-6	1,1-Dichloropropene	ND		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050		ug/l
107-06-2	1,2-Dichloroethane	ND	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	ND	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-1	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ND		0.39	ug/l
75-71-8	Dichlorodifluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	ug/l
95-50-1	o-Dichlorobenzene	ND	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	ND	75	0.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l

ND = Not detected

E = Indicates value exceeds calibration range

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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Client Sample ID: RESW-3 E98453-3 Lab Sample ID:

Matrix: Method:

DW - Drinking Water EPA 524.2 REV 4.1 Lenox, Pomona, NJ

Date Sampled: 09/10/01 Date Received: 09/11/01 Percent Solids: n/a

**VOA List** 

Project:

CAS No.	Compound	Result	MCL	RL	Units Q
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l
100-41-4	Ethylbenzene	ND	700	0.31	ug/l
87-68-3	Hexachlorobutadiene	ND		0.39	ug/l
110-54-3	Hexane	ND		0.71	ug/l
591-78-6	2-Hexanone	ND		0.40	ug/l
98-82-8	Isopropylbenzene	ND		0.31	ug/l
99-87-6	p-Isopropyltoluene	ND		0.26	ug/l
75-09-2	Methylene chloride	1.1	3.0	0.39	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND.	- 70	0.26	ug/l
108-10-1	4-Methyl-2-pentanone	ND		0.48	ug/l
91-20-3	Naphthalene	ND	300	0.44	ug/l
103-65-1	n-Propylbenzene	ND		0.24	ug/l
100-42-5	Styrene	ND	100	0.15	ug/l
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.38	ug/l
71-55-6	1,1,1-Trichloroethane	ND	30	0.34	ug/l
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/i
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.34	ug/l
87-61-6	1,2,3-Trichlorobenzene	ND		0.51	ug/l
96-18-4	1,2,3-Trichloropropane	ND	•	0.41	ug/l
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.32	ug/l
95-63-6	1,2,4-Trimethylbenzene	ND		0.18	ug/l
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l
108-88-3	Toluene	ND	1000		ug/l
79-01-6	Trichloroethylene	ND	1.0	0.39	ug/l
75-69-4	Trichlorofluoromethane	ND		0.20	ug/l
75-01-4	Vinyl chloride	ND	2.0	0.32	ug/l
	m,p-Xylene	ND		0.31	ug/l
95-47-6	o-Xylene	ND		0.32	ug/l
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run	# 2	Limits
2199-69-1	1,2-Dichlorobenzene-d4	94%			66-113%
460-00-4	4-Bromofluorobenzene	88%			57-111%

Client Sample ID: TB

Lab Sample ID:

E98453-4

Date Sampled: 09/10/01

Matrix: Method: DW - Drinking Water TB EPA 524.2 REV 4.1

09/11/01 Date Received:

Percent Solids: n/a

Project:

Lenox, Pomona, NJ

**Analytical Batch Prep Batch** 

Run #1

File ID DF D45638.D

Analyzed Вy MMC 09/19/01

**Prep Date** n/a

n/a

VD1969

Run #2

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-1	Acetone	ND		1.0	ug/l
78-93-3	2-Butanone	ND :		0.65	ug/l
71-43-2	Benzene	ND	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND		0.26	ug/l
74-97-5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND .		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.32	ug/l
98-06-6	tert-Butylbenzene	ND		0.21	ug/l
75-15-0	Carbon disulfide	ND		0.47	ug/l
108-90-7	Chlorobenzene	ND	50	0.28	ug/l
75-00-3	Chloroethane	ND		0.47	ug/l
67-66-3	Chloroform	ND		0.30	ug/l
74-87-3	Chloromethane	ND		0.46	ug/l
95-49-8	o-Chlorotoluene	ND		0.28	ug/l
106-43-4	p-Chlorotoluene	ND		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	1,1-Dichloroethane	ND	50	0.35	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.39	ug/l
563-58-6	1,1-Dichloropropene	ND		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050		ug/l
107-06-2	1,2-Dichloroethane	ND	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	ND	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-1	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ND		0.39	ug/l
75-71-8	Dichlorodifluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	ug/l
95-50-1	o-Dichlorobenzene	ND	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	ND	75	0.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l

ND = Not detected

E = Indicates value exceeds calibration range

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Client Sample ID: TB

E98453-4 Lab Sample ID:

Matrix:

DW - Drinking Water TB

Method: Project:

EPA 524.2 REV 4.1 Lenox, Pomona, NJ

Date Sampled: 09/10/01

Date Received: 09/11/01

Percent Solids: n/a

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l	
100-41-4	Ethylbenzene	ND	700	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND		0.39	ug/l	
110-54-3	Hexane	ND.		0.71	ug/l	
591-78-6	2-Hexanone	ND		0.40	ug/l	
98-82-8	Isopropylbenzene	ND		0.31	ug/l	
99-87-6	p-Isopropyltoluene	ND		0.26	ug/l	
75-09-2	Methylene chloride	112	3.0	0.39	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	70	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone	ND		0.48	ug/l	
91-20-3	Naphthalene	ND	300	0.44	ug/l	
103-65-1	n-Propylbenzene	ND		0.24	ug/l	
100-42-5	Styrene	ND	100	0.15	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.38	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	30	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.34	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND		0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND		0.41	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.32	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND		0.18	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1000	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.39	ug/l	
75-69-4	Trichlorofluoromethane	ND		0.20	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.32	ug/l	
	m,p-Xylene	ND		0.31	ug/l	
95-47-6	o-Xylene	ND		0.32	ug/l	
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run	# 2	Limits	
2199-69-1	1,2-Dichlorobenzene-d4	95%			66-113%	
460-00-4	4-Bromofluorobenzene	91%			57-111%	
-100-00-4	, D. Gillottage German					



To: Daryl Clark < DCLARK@dep.state.nj.us>, Andy Park/R2/USEPA/US@EPA

CC:

Subject: Re: Fwd: Lenox

10/16/01 07:34 AM

\*\* High Priority \*\*

Andy & Daryl, Attached please find a status update on the sampling of residential homes around Lenox. Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028 phone: 609-984-4071

fax: 609-633-1439

e-mail: ffaranca@dep.state.nj.us

..... Message from John\_Kinkela@Lenox.com on Fri, 12 Oct 2001 18:07:20 -0400 .....

To: "Frank Faranca"

<FFARANCA@dep.state.nj.us>

Subject Re: Fwd: Lenox

Frank,

In response to your questions on the telephone the other day. The quick answer is that Jim Barish, Gannet-Fleming, received results from the laboratory for three (3) residences this week and sent them to the Atlantic County Department of Human Services (ACDHS) today. As we previously discussed, ACDHS will notify the residents of the results and forward the information to NJDEP and EPA (or give permission for Lenox to do so).

How did it get to be three residences? Originally, you and I and Daryl Clark reviewed a sketch of the South Mannheim resdences and picked four residences -Catania, DeCamp, Voudren and Gras - for a round of monitoring. Lenox subsequently learned that these residences were, in fact, connected to public water. Therefore, we moved to three adjacent residences further to the north which are still on well water and sampled them. They are Burns, Heyes, and Paulmeno (residence previously owned by O'Connor). After these three, there

no additional residences for another five hundred feet (500') . The Burns residence is situated over one thousand feet (1,000') from well 79A on the east

side of Mannheim, downgradient of construction equipment maintenance garages,

you may recall from your site visit. The Heyes residence is immediately across the street. While the Paulmeno residence is another two hundred and seventy-five

feet (275') down the west side of Mannheim Avenue.

Andy Park

To: ffaranca@dep.state.nj.us

10/10/01 10:59 AM

cc: Subject: lenox

Frank.

How is it going with the efforts by the Atlantic County Department of Human Services? Appreciate it if you provide me with an update on the progress. Thanks, Andy



# Department of Human Services

Dennis Levinson County Executive

Division of Public Health 609/645-5935 FAX: 645-5931

Community Health/Clinical Services 609/645-5933

Environmental Health 609/645-5971 FAX: 645-5923

Substance Abuse Services 609/645-5932 FAX: 645-5931

Animal Shelter 609/485-2345 FAX: 484-0767

August 15, 2001

Mr. and Mrs. Samuel J. Burns 360 S. Mannheim Avenue Egg Harbor, New Jersey 08215

Dear Mr. and Mrs. Burns:

The Atlantic County Health Department has been monitoring a groundwater clean up project on the Lenox China property. An initial round of testing, which did not include your well, was conducted in 1993. At that time, all parameters were found to be either absent or within limits in residential wells in your area.

Lenox installed a pump and treatment system on its property in 1991 to clean up the groundwater. To check system performance, Lenox has agreed to pay for additional sampling of nearby private wells on Mannheim Avenue. This is a comprehensive water test that not only detects trichloroethene, the contaminant on site at Lenox, but also many other volatile organic chemicals ...... common degreasers and solvents that have been found in numerous wells throughout Atlantic County.

Lenox has retained a consultant to take a well water sample at your house at your earliest convenience. To schedule your free testing, please call Jim Barish, Eder Associates at 1-800-249-3337.

The Health Department will review the results and advise you of the need for any further action. If you have any further questions, please feel free to call Keith Phillips or Daniel Crum of my staff at 645-5971 or 645-5972.

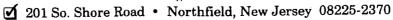
Very truly yours,

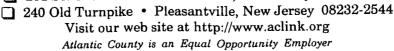
Tracye McArdle
Public Health Director

TM:ak

 c: Thomas Henshaw, Galloway Township Manager Frank Faranca, NJDEP John Kinkela, Lenox China Keith Phillips, Senior Sanitary Inspector













### Department of Human Services

Dennis Levinson County Executive

Division of Public Health 609/645-5935 FAX: 645-5931

Community Health/Clinical Services 609/645-5933

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Substance Abuse Services 609/645-5932 FAX: 645-5931

Animal Shelter 609/485-2345 FAX: 484-0767

August 15, 2001

Mr. and Mrs. John O'Connor 353 S. Mannheim Avenue Egg Harbor, New Jersey 08215

Dear Mr. and Mrs. O'Connor:

The Atlantic County Health Department has been monitoring a groundwater clean up project on the Lenox China property. An initial round of testing, which did not include your well, was conducted in 1993. At that time, all parameters were found to be either absent or within limits in residential wells in your area.

Lenox installed a pump and treatment system on its property in 1991 to clean up the groundwater. To check system performance, Lenox has agreed to pay for additional sampling of nearby private wells on Mannheim Avenue. This is a comprehensive water test that not only detects trichloroethene, the contaminant on site at Lenox, but also many other volatile organic chemicals ...... common degreasers and solvents that have been found in numerous wells throughout Atlantic County.

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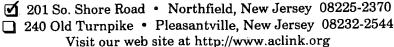
Very truly yours,

Tracye McArdle Public Health Director

TM:ak

 c: Thomas Henshaw, Galloway Township Manager Frank Faranca, NJDEP John Kinkela, Lenox China Keith Phillips, Senior Sanitary Inspector





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# Department of Human Services

Dennis Levinson County Executive

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Community Health/Clinical Services 609/645-5933

Environmental Health 609/645-5971 FAX: 645-5923

Substance Abuse Services 609/645-5932 FAX: 645-5931

Animal Shelter 609/485-2345 FAX: 484-0767

August 15, 2001

Mr. Cecil Heyes 357 S. Mannheim Avenue Egg Harbor, New Jersey 08215

Dear Mr. Heyes:

The Atlantic County Health Department has been monitoring a groundwater clean up project on the Lenox China property. An initial round of testing, which did not include your well, was conducted in 1993. At that time, all parameters were found to be either absent or within limits in residential wells in your area.

Lenox installed a pump and treatment system on its property in 1991 to clean up the groundwater. To check system performance, Lenox has agreed to pay for additional sampling of nearby private wells on Mannheim Avenue. This is a comprehensive water test that not only detects trichloroethene, the contaminant on site at Lenox, but also many other volatile organic chemicals ...... common degreasers and solvents that have been found in numerous wells throughout Atlantic County.

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Very truly yours,

Tracye McArdle Public Health Director

TM:ak

 Thomas Henshaw, Galloway Township Manager Frank Faranca, NJDEP John Kinkela, Lenox China Keith Phillips, Senior Sanitary Inspector

Offices at:

201 So. Shore Road • Northfield, New Jersey 08225-2370

240 Old Turnpike • Pleasantville, New Jersey 08232-2544
Visit our web site at http://www.aclink.org

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**Barry Tornick** 

03/30/01 11:52 AM

To: Andy Park/R2/USEPA/US@EPA

cc:

Subject: Re: Lenox China

That is great. Thanks.

Andy Park



**Andy Park** 

03/27/01 01:42 PM

To: Barry Tornick/R2/USEPA/US@EPA

cc:

Subject: Lenox China

FYI -

Record of Conversation with Frank Faranca, NJDEP Case Manager, on Lenox China, 3/27/01

He informed that Lenox China plans to collect groundwater samples from residential houses southwest of the facility near well 78A. The sampling is expected to take place in early April 2001 and about 12 residential houses would be targeted.

**Andy Park** 



To: Barry Tornick/R2/USEPA/US@EPA

cc:

Subject: Lenox China

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Andy Park

3/27/01 ROC W/ Frank Favanca, 75000 Lemx is moving about with sampling of of-site residential houses ponthwest of the facility near mw-78A. about 12 residential George will be targeted for sampling in early April 2001.

Andy Park

NTPODI 325074

Recld 10/28/02



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540

Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

#### VIA FEDERAL EXPRESS

October 16, 2002 File #35221.005

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re:

Geoprobe Sampling Locations Lenox China, Pomona, New Jersey

Dear Mr. Faranca:

The attached map shows the approximate locations at which groundwater samples will be collected with a Geoprobe during the upcoming plume delineation work. A second, smaller-scale map is also attached that shows the distances between the residences along Mannheim Avenue and the White Horse Pike (Rt. 30). As described in our June 12 plan, sampling will be performed at approximately 100-foot intervals east of well MW-79A along the White Horse Pike and north of the Burns' property (Lot 463) along Mannheim Avenue. A series of sampling points will also be installed along the paper street identified as Harmony Avenue, which will be used to characterize the downgradient extent of TCE.

All sampling locations are approximate, and it may be necessary to adjust the number or location of the sampling points in step with the work based on access constraints or the results from the TCE analyses that will be performed in the field. We have tentatively scheduled the field work to begin during the week of October 21, 2002, pending approval of NJDOT right-of-way access permits.

## **Gannett Fleming**

Mr. Frank Faranca NJDEP October 16, 2002

- 2 -

Please call if you have any questions.

Very truly yours,

GANNETT FLEMING, INC

JAMES M. BARISH, OPG

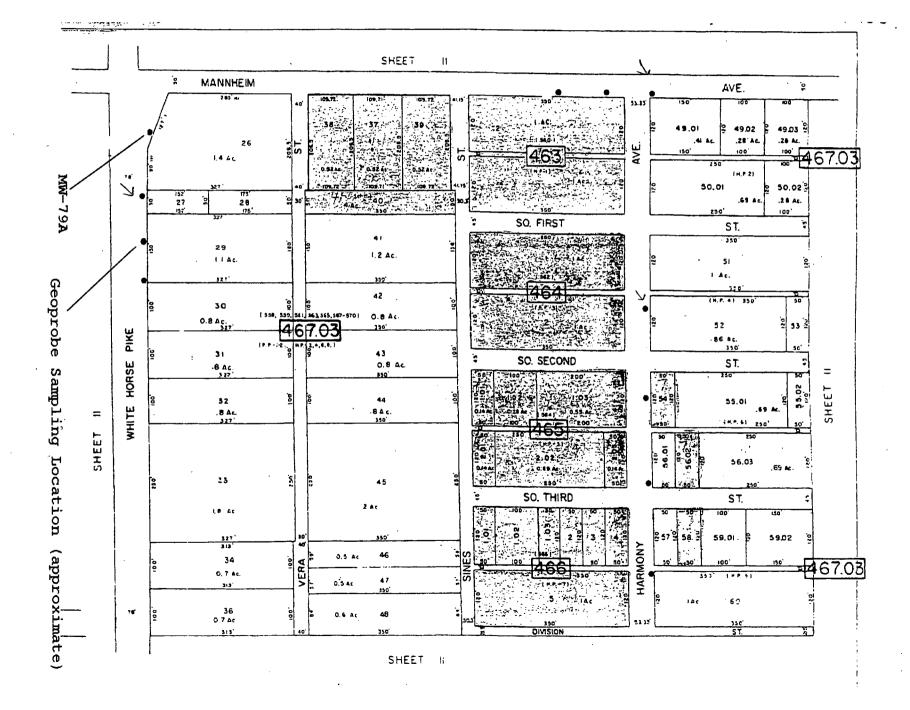
Project Manager/Senior Hydrogeologist

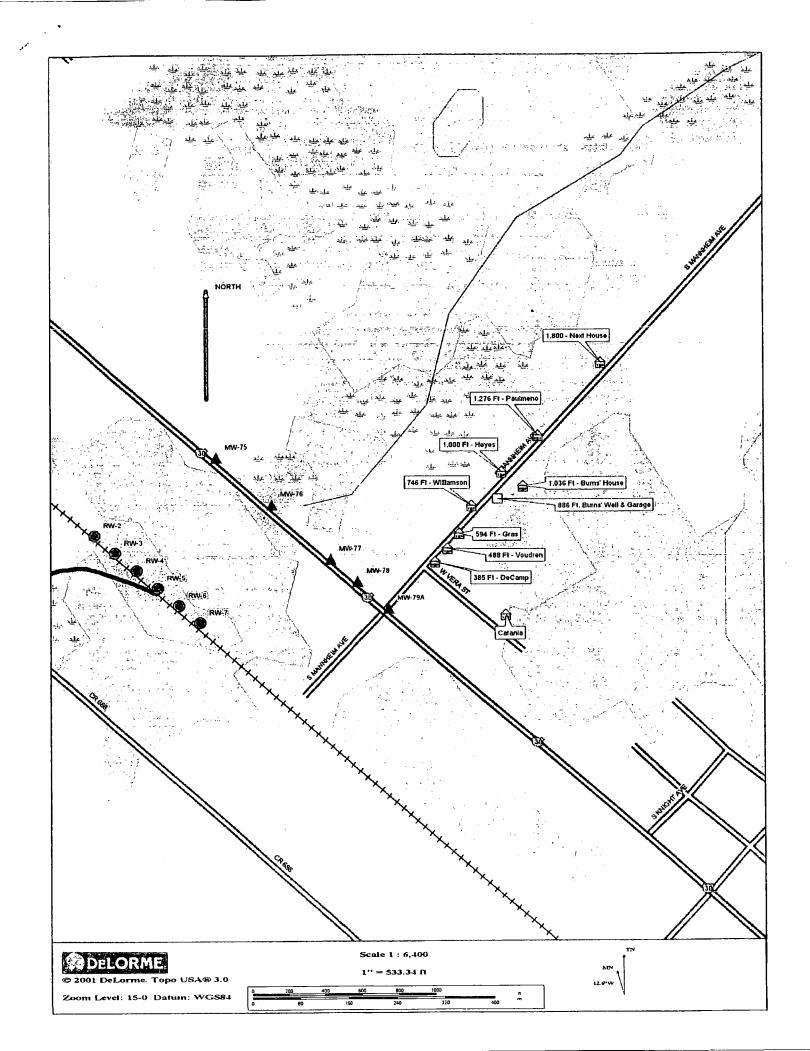
Attachment

cc: Andrew Park, USEPA

Daryl Clark, NJDEP Lou Fantin, Lenox John Kinkela, Lenox

Gary Berman





Rec'd 10/28/02



September 26, 2002

Mr. Frank Faranca
Case Manager
NJDEP
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
CN 028
Trenton, NJ 08625-0028

RE: NJPDES-DGW Permit 0086487 Effective March 1, 2000

Dear Mr. Faranca:

Two copies of the Discharge to Groundwater Report consisting of one (1) T-VWX-014, seven (7) VWX-015 Groundwater Analysis – Monitoring Well reports and report Sections 1.0 through 8.0 for the July through September 2002 quarter are enclosed.

Detection Monitoring was performed in accordance with Part 4-DGW Table 2, using the Ground Water Sampling and Analysis Plan approved in April 1996.

Lenox inspection logs were reviewed and a summary of the logs for the quarter is enclosed.

The "Mann-Whitney U-Test" statistical analysis of the ground water TCE results from the five (5) sentinel wells over eight (8) sampling quarters was rolled forward eleven (11) quarters to cover the July 2002 data and is included in section 7 of the report. The null-hypothesis is accepted for sentinel wells MW-78 and MW-79A and we cannot statistically conclude that the TCE concentrations are decreasing for the eleventh quarter's data set. The null-hypothesis is **not accepted** for sentinel wells MW-76, MW-77 and we can statistically conclude that the TCE concentrations are decreasing for the eleventh quarter's data set. In addition, MW-75 has been non-detect for the past twelve consecutive quarters respectively.

The **bold** data in the tables denotes elevated results, which exceed the site-specific GWQC's for lead (10ug/l) and zinc (36.7 ug/l) as determined by calculating their arithmetic means from data reported in a 3-year study. Trichloroethylene levels are compared to the New Jersey limit of 1.0 ppb. Please note:

- MW-3 continues to show elevated lead and zinc, as has been historically noted;
- MW-72, MW-73 and MW-74 were less than the laboratory detection limit for dissolved lead this quarter. MW-72, MW-73 and MW-74 showed slightly elevated total lead. NOTE: that background monitoring wells MW-3F and MW-6F showed elevated total lead at 6.6 and 4.4 mg/L respectively while MW-3F, only, showed dissolved lead at 3.4 mg/l.

Mr. Frank Faranca September 26, 2002 Page 2

Re: NJPDES-DGW Permit 0086487 Effective March 1, 2000

- B-31, MW-3, MW-4, MW-17, MW-25, MW-73 and MW-74 showed elevated levels of both total and dissolved zinc;
- Of the fifteen (15) wells sampled for TCE this quarter, five (5), MW-12S, MW-77, MW-78, MW-79A and MW-81, were higher than the last quarter. Six (6) wells decreased, MW-10, MW-15, MW-25, B-31, B-59, and MW-76. Four (4) wells, MW-1, MW-13, MW-75, and MW-80, remained the same all non-detect;
- TCE was elevated in three (3) of the five (5) downgradient sentinel wells, MW-77, MW-78, and MW-79A. One (1) sentinel well, MW-76 decreased;
- The Monthly Daily Average Flows for the quarter were 292,707 gallons per day for June, 336,594 gallons per day for July and 349,848 gallons per day for August 2002. NOTE: The wells were down several days in June due to a damaged electric power feed;
- GAC Treatment System influent, mid effluent, filtered and unfiltered, water samples contained elevated zinc (at 110, 30 and 150 ug/L filtered and 80, 20 and 100 ug/L unflitered respectively). The zinc is attributed to the higher zinc levels previously observed in B-31 and other wells;
- Lead was detected in the GAC Treatment System influent and effluent, unfiltered samples below background level at 2 ug/L. Lead was not detected in the filtered mid-influent or any of the unfiltered water samples;
- The volatile organic compound cis-1,2-dichloroethene was detected in, MW-10 and MW-79A. Trans-1,2 dichloroethene was detected in MW-79A. TCE daughter species were not detected in any other wells.
- The GAC treatment system was rebedded on July 23, 2002.

Please call (609) 965-8272 if there are any questions.

Sincerely.

John F. Kinkéla

Director of Environmental Engineering

**Enclosures** 

-Pomona DGW and TCE Quarterly Groundwater Monitoring Report - July 2002

Monitoring Round

-Summary of Inspection Logs - July through September 2002 Quarter

bcc:

J.H. Ennis (w/attachments)
L.A. Fantin, Lenox (w/attachments)
Andrew Park (w/attachments)

File

## NE W JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF WATER RESOURCES

Form T-VWX-14

### **MONITORING REPORT - TRANSMITTAL SHEET**

<b>N</b>	JPDES No. M		NG PERIOD MO YR		
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PERMITEE: Nam					
Addre		<del></del>			
	LAWRENCEVILLE, NEW JERSEY 0864	8			
FACILITY: Nam	e LENOX CHINA, A DIVISION OF LENOX	( INCOR	PORATED		
Addre		<del> </del>			
	POMONA, NEW JERSEY 08240		(County) ATLANTIC		
Telephon	e (609) 965-8272				
FORMS ATTACHED (	Indicate Quantity of Each)	ОР	PERATING EXCEPTIONS	YES	NO
SLUDGE REPORTS - SA	NITARY	DYE	ETESTING		
T-VWX-007		TEN	IPORARY BYPASSING		
SLUDGE REPORTS - INI	DUSTRIAL	DIS	NFECTION INTERRUPTION		
T-VWX-010A	T-VWX-010B	МО	NITORING MALFUNCTIONS		
WASTEWATER REPORT	S	UNI	TS OUT OF OPERATION		
T-VWX-011	T-VWX-012 T-VWX-013A	ОТН	IER		
GROUNDWATER REPC	DRTS (As per permit)		tail any "yes" on reverse side appropriate space.)		
7 VWX-015	☐ VWX-016 ☐ VWX-017				
NJPDES DISCHARGE N	MONITORING REPORT		•		
EPA FORM 332	0-01	1			
AUTHENTICATION -	I certify under penalty of law that I have information submitted in this document of those individuals immediately respons submitted information is true, accurate, penalties for submitting false information	and all c lible for c and con includin	attachments and that, based obtaining the information, I b inplete. I am aware that the	d on my believe the ere are sig	inquiry ne gnificai
LICENSED OPERATOR			AUTHORIZED REPRESENTATIVE	Ē	
Name		Name	JOHN F. KINKELA		
Grade & Registry No.		Title	DIR. OF ENVIRONMENTAL	ENGINEE	RING
Signature		Signati	ing thinks / Vunkela	9-20	6-02

#### LENOX CHINA POMONA, NEW JERSEY

#### TABLE 1 SECTION 2

#### GROUNDWATER CHEMISTRY DATA, JULY 2002

Color					ſ						
Security Conductance	TB		CARRETTO DUEN	653-00072510000	1000	1007.6	1007.4	) (TIL 2		·	
Specific Conductance	+ 15	FD_						<del></del>			<u> </u>
Coverent   Dissolved   mg/l   8.23   1.48   7.57   7.94   0.36   6.49   6.49   Temperature, Field   C   15.8   19.9   19.6   16.7   18.1   17.6   1	-	-			ľ	l .		1		pH units	
Temperature, Field   Total Suspended Solids   mg/l   44.0   44	-	-	1		I				1		
Total Suspended Solids	-	-	1	1	i		l	1.48	8.23	mg/l	Oxygen, Dissolved
Total Dissolved   Pag/1   Color   Co	-	-		17.6	18.1	16.7	19.6	19.9	15.8	°C	Temperature, Field
Total Dissolved Solids   mg/l   64/   -   -   -   -   217/   221/   <0	-		<4.0 V	<4.0	-	-	- i	-	<4.0 √	mg/l	Total Suspended Solids
Nitrite-Nitrogen	-	<10 ′	221 v	217×	-	-	-	-	64 🗸	mg/l	
Nitrate-Nitrogen	-	-	-	_	-	_	-		1 -	_	II .
Ammonia-Nitrogen   mg/l   Phosphous, Total as P   µg/l	-	-			_	-	-	_	-		
Phosphorus, Total as P	.   -		-	-	_	- 1	-	_	_	. –	
Total	-	_	_		_	_	_	_	i .		
Color	-	_	_	_	_		_				
Odor   T.O.N.   -   -   -   -   -   -   -   -   -	_	<5 /	5	<5 V	<i>65</i> 1	~5 V	-51	25./	1 /		-
Sulfate	_	_			_		_	23.			D .
Chromium, Dissolved   µg/l   100	_	_	_	_	_		· -	-	i -		11
Iron, Dissolved			- :	-	-	- 1		-	-		II.
Lead, Dissolved	_	-100	100 (	100.4	-	-	-	-		_	III
Manganese, Dissolved   µg/l	-				-	/	/	-			II '
Sodium, Dissolved	-	<3.0 /	<3.0√	<3.0 <sub>V</sub>	<3.0 ✓	<3.0 7	8.9 v	69.5 √	<3.0 /	μg/l	
Zinc, Dissolved	1 -	-	-	-	-	-	-	-		μg/l	Manganese, Dissolved
Zinc, Dissolved	-	-	- ,	-	- ,	- /	- /	- ,	- /		Sodium, Dissolved
Chromium, Total	-	<20 .	<20 √	<20 √	<20 ✓	<20 √	109 🗸	14,900√	<20 ⋅		Zinc, Dissolved
Iron, Total	-		-	-	-	- ]	-	-	-		
Lead, Total		<100	<100 °	<100	-	-	- 1	-	<100 ✓		II ·
Manganese, Total	-	<3.0			<3.0 √	<3.0 √	7.2✓	80.8			
Sodium, Total	-	-	-	-	-	- 1	_	_	1		
Zinc, Total	-	-	_	_ 1	,	_	_ [	_	_		
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Acrolein	1 -	-		201	20	20	102	14,700	\\20 \		
Acrylonitrile	1 _		- 1	-	-	-	- 1	r .	-		
Велгене	1	-	-	- 1	-	-	-	-	-		
Bromodichloromethane   μg/l	1	-	-		-	-	-	·	-		1)
Bromoform	· ·	-	-	-	-	-	-	-	-	μg/l	ll .
Bromomethane (1)	-	-	-	-	-	- [	-	-	-	μg/l	Bromodichloromethane
Carbon Tetrachloride	-	-	-	-	-	- i	- 1	- :	-	μg/l	Bromoform
Chloroethane	-	-	-	-	-	-	-	-	-	μg/l	Bromomethane (1)
Chlorobenzene	-	-	-	- i	-	-		-	- [	μg/Ι	Carbon Tetrachloride
Chloroethane	-	-	-	- ]	-	-	-		_ ]		Chlorobenzene
2-Chloroethylvinyl Ether μg/l	-	-	-	-	- 1	-	-		_		B .
Chloroform	-	-	-	-	- 1		-	- 1	_		II .
Chloromethane (2)	-	-	-	_	_	_	_	_ [	_	110/1	
Dibromochloromethane (3)   μg/l   -   -   -   -   -   -   -   -   -	_	_	_	_	_	_	_		_		
1,2-Dichlorobenzene	_		_		_	_	_ 1		_		
1,3-Dichlorobenzene μg/l	1 -	_				_ i	· ]	۱ -	-		
1,4-Dichlorobenzene   μg/l   -   -   -   -   -   -   -   -   -		- ·	- I	-	- 1	- I:	- 1	-	-		*
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1,2-Dichloroethane	1 -	-	-	-	-	-	-	-	- [		
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Cis-1,2-Dichloroethene $\mu g/l$ <0.16 0.82 0.95 <0.16	<0.17				-	-	-	-	<0.17		1,1-Dichloroethene
	< 0.16	<0.16	0.95	0.82	-	-	-	-	<0.16		
	<0.11	< 0.11	<0.11	<0.11	-	-	<b>-</b> ,		< 0.11	μg/l	Trans-1,2-Dichloroethene
1,2-Dichloropropane µg/1	_	-			_	-	-	. 1		цд/)	
Cis-1,3-Dichloropropene µg/l	-	-	- 1	_ [	_	_	_	_ [	_		
Trans-1,3-Dichloropropene µg/l	_	_ [	_	_	_	. 1	_	_	_		
	_		_	_ 1	_			_			
	<0.14	1.0	<0.14	<0.14	_	_ [	-	_			
15		1.0	-0.17	~0.17	_ [	- 1	-	-	<0.14		
1,1,2,2-Tetrachloroethane µg/l		-	-	-	- [	-	-	-			
Tetrachloroethene µg/l	-	-	-	-	- 1	-	-	-	-		
Toluene μg/1 -   -   -   -   -   -   -   -   -   -	-	-	-	-	-	-	-	-	-		
1,1,1-Trichloroethane µg/1 -   -   -   -   -   -   -	_	-	-	-	-	-	-	-	-		• •
1,1,2-Trichloroethane µg/l -   -   -   -   -   -   -   -   -   -	1	- /	- ,	- /	-	- ]	-	-	- ,1	μg/l	1,1,2-Trichloroethane
Trichloroethene (TCE) $\mu g / 1$ <0.15/ 6.4 6.3 <0.15/	<0.15	<0.15	6.3	6.4 V	-	-	-	-	<0.15	μg/l	Trichloroethene (TCE)
Trichlorofluoromethane µg/l -   -   -   -   -   -	-	-	-	-	-	-	- 1	-	-		, ,
Vinyl Chloride μg/l <0.14' <0.14 <0.14 <0.14	<0.14	<0.14	<0.14	<0.14	-	-	-	-	<0.14		
Xylenes (total) μg/l	-	-	-	-	-	-	-	-	-		
Sum of Volatile Organic Compounds $\mu g/l$ < 0.44 7.2 7.3 1.0	< 0.44	1.0	7.3	7.2	-	-	-	-	< 0.44		

#### Notes

- = Not Analyzed

Values in **bold** font exceed the site specific Groundwater Quality Criteria for Lead (10 μg/l), Zinc (36.7 μg/l) and TCE (1.0 μg/l).

## LENOX CHINA A DIVISION OF LENOX, INC. POMONA, NEW JERSEY

POMONA DGW AND TCE
QUARTERLY GROUNDWATER
MONITORING REPORT
JULY 2002 MONITORING ROUND

PROJECT #34290.000/35221.001 SEPTEMBER 2002

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#### 2.0 DETECTION MONITORING PROGRAM (DGW)

The quarterly detection monitoring program is covered by the GWSAP and consists of the following for the third quarter:

- Sample monitoring wells MW-1, MW-3, MW-4, MW-6, MW-9 and MW-10.
- Analyze all samples for color and total and dissolved lead and zinc. Samples from MW-1
  and MW-10 are also analyzed for total dissolved solids (TDS), total suspended solids
  (TSS), and total and dissolved iron.
- Specific conductivity, pH, temperature and dissolved oxygen are measured in the field during purging and prior to sample collection.

The groundwater analytical data is summarized in Tables 1 through 7, Section 2. Table 1 summarizes the results of the current sampling event. The full laboratory data report is provided in Appendix C. Tables 2 through 7 summarize historical sampling results for each well since 1994.

The July 2002 detection monitoring results are summarized below:

- Lead concentrations in the filtered samples ranged from less then the laboratory reporting limit of 3.0 micrograms per liter (μg/l) to 69.5 μg/l, with the highest concentration in the sample from well MW-3. Lead concentrations in the unfiltered samples ranged from less than the laboratory reporting limit of 3.0 μg/l to 80.8 μg/l, with the highest concentration also in the sample from MW-3.
- 2inc concentrations in the filtered samples ranged from less than the laboratory reporting limit of 20 μg/l to 14,900 μg/l, with the highest concentration in the sample from well MW-3. Zinc concentrations in the unfiltered samples ranged from less than the laboratory reporting limit of 20 μg/l to 14,700 μg/l, with the highest concentration also in the sample from MW-3.

- Iron was not detected in the filtered or unfiltered samples from MW- $\overset{\checkmark}{1}$  and MW- $\overset{\checkmark}{10}$  at concentrations exceeding the 100 µg/l laboratory reporting limit.
- TDS concentrations were 64 milligrams per liter (mg/l) in MW-1 and 217 mg/l in MW-10. TSS concentrations did not exceed the 4.0 mg/l laboratory reporting limit in either MW-1 or MW-10.
- Color concentrations were less than or equal to 5 for all samples except MW-3, which had a concentration of 25.

I. General Infor	mation: enox China, Pomo	na. NJ		<b>Project No.:</b> <u>342</u>	90.000		
	NJPDES Quarterly			Sampled By: RB			
-		Womtoring		Well Use: Monit			
Well No.: MW-	_			_	_		
Sample ID: MW	<u>'-1</u>	Sample Date: 7/	19/02	Sample Time: <u>08</u>	<u>30</u>		
II. Well Informa PID Reading: <u>-</u>	tion:		Well Diameter:	4 inches			
Static Depth to	<b>Water</b> : <u>16.57</u> ft. b	elow m.p.	Measuring Poin	nt (m.p.): PVC Casi	ng		
Total Well Dept	h: <u>29.75</u> ft. below	m.p.	Measuring Poin	nt (m.p.): <u>PVC Casi</u>	<u>ng</u>		
Δ h: <u>13.18</u> feet			Volume of Stan	<b>ding Water:</b> <u>8.57</u> g	allons		
Volume to be re	moved: <u>25.71</u> gall	lons	Actual Volume	removed: 26.00 gal	llons		
III. Sampling In Purging Method  ☐ Peristaltic Pu ☐ Bailer	l: ımp	Ma	Submersible Other	·			
Well Drawdown/Recovery:			Poor	Other			
Pump Flow Rate	e: <u>0.74</u> gpm			Purge Time: <u>{</u>	3 <u>5</u> min.		
Purge Chemistr	y:						
Time	Gallons	pH (Std. Units)	Sp. Cond. (ms)	D. O. (ppm)	Temp. (°C)		
0759	5	4.63	.145	8.06	16.2		
0806	10	4.95	.163	8.65	16.0		
0813	. 15	5,06	.169	6.66	15.9		
0821	20	5.25	.170	8.27	15.8		
0828	25	5.23	.171	8.23	15.8		
Depth to water a	ifter purge: <u>17.91</u>	ft. below m.p.		<b>Time</b> : <u>0830</u>			
Depth to water p	orior to sampling	: <u>17.91</u> ft. below m	.p.	Time: <u>0830</u>			
Sample Appeara	nce: Turbi	d SI	lightly Turbid	⊠ Clear □	Other		
Sample Odor:	None	□о	ther				
IV. Sample Analy Sample Paramet Metals:	yses: ers: Voc, Metals,	<u>Color, TDS, TSS</u> ⊠ Filtered		☑ Unfiltere	ed		
Laboratory: Acc	utest		<b>Date Shipped</b> : 7/19/02				

I. General Infor Client Name: L	rmation: enox China, Pomo	na, NJ		<b>Project No.:</b> <u>342</u>	290.000		
	NJPDES Quarterly		Sampled By: RB & MH				
Well No.: MW-				Well Use: Monit			
Sample ID: MW		Sample Date: 7/	/18/02	Sample Time: 18			
Sample 1D. <u>IVI V</u>	<u>1-5</u>	Sample Date. 11	10/02	Sample Time. 10	, ,		
II. Well Information PID Reading:	ution:		Well Diameter:	4 inches			
Static Depth to	<b>Water</b> : <u>14.57</u> ft. b	elow m.p.	Measuring Poin	ıt (m.p.): <u>PVC Casi</u>	ng		
Total Well Dep	th: <u>30.40</u> ft. below	m.p.´	Measuring Poin	it (m.p.): PVC Casi	ng		
Δ <b>h:</b> <u>15.83</u> feet			Volume of Stan	ding Water: <u>10.29</u>	gallons		
	emoved: 30.87 gall	One		removed: 31.00 ga	_		
voiding to be 10		Olis	retual volume	1 cm veu. <u>51.00</u> ga	10113		
III. Sampling In Purging Method  ☐ Peristaltic Pu ☐ Bailer	<b>i</b> :		Submersible	-			
	n/Dacayary	⊠ Good	Poor	Other			
Well Drawdown/Recovery:  ☐ Good Pump Flow Rate: 0.53 gpm				Purge Time:	— 50 min		
rump riow Kau	e: <u>0.55</u> gpm	•		ruige iime. ,	<u> </u>		
Purge Chemistr	y:						
Time	Gallons	pH (Std. Units)	Sp. Cond. (ms)	D. O. (ppm)	Temp. (°C)		
1703	5	5.14	.642	0.60	21.3		
1710	10	5.76	.708	6.10	21.2		
1727 1737	15 20	5.24	.727	0.91	18.9 19.5		
1747	25	5.30	.731	0.87	19.8		
1757	30	5.36	.738	1.48	19.9		
Depth to water a	ıfter purge: <u>18.50</u>	ft. below m.p.		Time: <u>1800</u>			
Depth to water p	orior to sampling:	18.50 ft. below m	.p.	Time: <u>1800</u>			
Sample Appeara	nce: Turbio	ı 🗌 Si	ightly Turbid	⊠ Clear □	Other		
Sample Odor:	⊠ None	o	ther				
IV. Sample Analy	vses: ers: <u>Metals, Color</u>						
Metals:							
				□ Unfiltere	d		

	_						
I. General Infor Client Name: Le	mation: enox China, Pomor	na, NJ		Project No.: 342	290.000		
	NJPDES Quarterly		Sampled By: <u>RB &amp; MH</u>				
Well No.: MW-				Well Use: Monit	oring		
Sample ID: MW	_	Sample Date: 7/	′18 <u>/02</u>	Sample Time: 19	<u>10</u>		
		• –		•			
II. Well Informa PID Reading: <u>-</u>	ation:		Well Diameter:	4 inches			
Static Depth to	<b>Water</b> : <u>13.88</u> ft. b	elow m.p.	Measuring Poin	t (m.p.): <u>PVC Casi</u>	ng		
Total Well Dept	h: <u>26.80</u> ft. below	m.p.	Measuring Poin	t (m.p.): <u>PVC Casi</u>	ng		
Δ <b>h:</b> <u>12.92</u> feet			Volume of Stan	ding Water: <u>8.40</u> g	allons		
Volume to be re	moved: <u>25.20</u> gall	ons	Actual Volume	removed: 26.00 ga	llons		
III. Sampling Ing Purging Method  ☑ Peristaltic Pu	l:		Submersible	Pump			
☐ Bailer			Other				
Well Drawdown	Recovery:	⊠ Good	Poor	Other			
Pump Flow Rate	e: <u>0.45</u> gpm			Purge Time:	<u>58</u> min.		
Purge Chemistr					·····		
Time	Gallons	pH (Std. Units)	Sp. Cond. (ms)	D. O. (ppm)	Temp. (°C)		
1814	5	5.38	.255	6.77	18.1		
1822	10	5.38	.254	5.08	19.1 19.8		
1837 1852	15 20	6.60	.257 .257	7.00	19.7		
1907	25	6.76	.255	7.57	19.6		
D=4h 44		6. h-1		Time: 1010	<del></del>		
_	ofter purge: 24.70	_		Time: <u>1910</u>			
Depth to water p	orior to sampling:	24.70 ft. below m	_	<b>Time</b> : <u>1910</u>			
Sample Appeara	nce: Turbic	i 🗌 Si	ightly Turbid	⊠ Clear □	Other		
Sample Odor:	None     Non		ther				
IV. Sample Analy Sample Paramet Metals:	oses: ers: <u>Metals, Color</u>	⊠ Filtered		☑ Unfiltere	:d		
	utest		Date Shinne	· —			
Laboratory: Accutest Date Shipped: 7/19/02							

I. General Information Client Name: Le	mation: enox China, Pomor	na, NJ		<b>Project No.</b> : <u>342</u>	90.000		
	JPDES Quarterly			Sampled By: RB	& MH		
Well No.: MW-6	5			Well Use: Monit	oring		
Sample ID: MW		Sample Date: 7/	18/02	Sample Time: 12	<u>45</u>		
•				•			
II. Well Informa PID Reading: -	tion:		Well Diameter:	4 inches			
Static Depth to	<b>Water</b> : <u>15.09</u> ft. b	elow m.p.	Measuring Poir	nt (m.p.): <u>PVC Casi</u>	ng		
Total Well Dept	<b>h</b> : <u>30.75</u> ft. below	m.p.	Measuring Poin	nt (m.p.): <u>PVC Casi</u>	ng		
Δ <b>h:</b> <u>15.66</u> feet			Volume of Stan	ding Water: <u>10.18</u>	gallons		
Volume to be re	moved: <u>30.54</u> gall	lons	<b>Actual Volume</b>	removed: <u>31.00</u> gal	lons		
	5						
III. Sampling Ing Purging Method  ☐ Peristaltic Pu	<b>l</b> :		Submersible	Pump			
☐ Bailer			Other				
Well Drawdown	/Recovery:	⊠ Good	Poor	Other	<u> </u>		
Pump Flow Rate	e: <u>1.47</u> gpm		•	Purge Time: 2	2 <u>1</u> min.		
Purge Chemistr	y:			· · · · · · · · · · · · · · · · · · ·			
Time	Gallons	pH (Std. Units)	Sp. Cond. (ms)	D. O. (ppm)	Temp. (°C)		
1226	5	4.45	.128	7.70	17.3		
1230	10	4.48	.133	8.05	16.8		
1236	20	4.55	:.167	8.02	16.8		
1243	30	4.58	.181	7.94	16.7		
Depth to water a	after purge: <u>13.38</u>	ft. below m.p.	•	Time: <u>1245</u>			
Depth to water p	orior to sampling	: <u>13.38</u> ft. below m	.p.	Time: <u>1245</u>	•		
Sample Appeara	ample Appearance: Turbid Slightly Turbid Clear Other						
Sample Odor:							
IV. Sample Analy Sample Paramet Metals:	yses: ers: <u>Metals, Color</u>	: ⊠ Filtered	·	☑ Unfiltered	ed		
Laboratory: Accutest Date Shipped: 7/19/02							

I. General Infor-	<i>mation</i> : enox China, Pomor	na, NJ		Project No.: 342	90.000	
	NJPDES Quarterly		Sampled By: RB & MH			
Well No.: MW-9			Well Use: Monitoring			
Sample ID: MW		Sample Date: 7/				
54.11p. 125. <u>112.1.</u>				•		
II. Well Informa	tion:		Well Diameter:	4 inches		
Static Depth to	<b>Water</b> : <u>17.39</u> ft. b	elow m.p.	Measuring Poin	t (m.p.): PVC Casi	ng	
-	th: 31.15 ft. below		Measuring Poin	t (m.p.): PVC Casi	ng	
$\Delta$ <b>h</b> : <u>13.76</u> feet		•	Volume of Stand	ling Water: <u>8.94</u> g	allons	
	moved: 26.82 gall	One		removed: 27.00 gal		
volume to be re	<u> 20.02</u> gui	Ono	1.00	<u> </u>		
III. Sampling In. Purging Method Peristaltic Pu	<b>1</b> :		Submersible	Pump		
☐ Bailer			Other			
Well Drawdown	/Recovery:	⊠ Good	Poor	Other	_	
Pump Flow Rate: 1.35 gpm				Purge Time: 2	<u>20</u> min.	
Purge Chemistr	y:					
Time	Gallons	pH (Std. Units)	Sp. Cond. (ms)	D. O. (ppm)	Temp. (°C)	
1634	5	6.47	.493	0.0	18.7	
1638	10	6.27	.514	0.0	18.1	
1641	15	6.19	.455	0.0	18.1	
1645	20	6.15	.407	1.0	18.1	
1649	25	6.12	.393	.36	18.1	
Depth to water a	after purge: <u>17.44</u>	ft. below m.p.		<b>Time</b> : <u>1651</u>		
Depth to water j	prior to sampling	17.44 ft. below m	ı.p.	Time: <u>1651</u>		
Sample Appeara	ance:	d 🔲 Si	lightly Turbid	⊠ Clear □	Other	
Sample Odor:	None None		ther			
-	yses: ters: <u>Metals, Color</u>	: <u>_</u>		<b>5</b> 7		
Metals:		V Ellegrad		XI I Infiltere	rd .	
Laboratory: Acc			Date Shippe	Unfiltere	ed .	

I. General Informa Client Name: Leno		ona, NJ		Project No.: 342	290.000		
Project Name: NJ			Sampled By: RB & MH				
Well No.: MW-10		<del></del>		Well Use: Monit	oring		
Sample ID: MW-1	0	Sample Date: 7/	18/02	Sample Time: 12	.00		
· · · · · · · · · · · ·	<del></del>		<del></del>	•			
II. Well Information PID Reading: -	on:		Well Diameter:	4_inches			
Static Depth to W	<b>ater</b> : <u>11.65</u> ft. b	pelow m.p.	Measuring Poin	t (m.p.): <u>PVC Casi</u>	ng		
Total Well Depth:	29.30 ft. below	/ m.p.	Measuring Poin	t (m.p.): <u>PVC Casi</u>	ng		
Δ <b>h:</b> <u>17.65</u> feet			Volume of Stand	ding Water: <u>11.42</u>	gallons		
Volume to be reme	oved: <u>34.41</u> gal	llons	Actual Volume	removed: <u>35.00</u> ga	llons		
III. Sampling Info	_						
Peristaltic Pum	p		☐ Submersible Pump				
☐ Bailer			Other				
Well Drawdown/R	lecovery:	⊠ Good	Poor	Other			
Pump Flow Rate:	1.75 gpm			Purge Time:	20 min.		
Purge Chemistry:							
Time	Gallons	pH (Std. Units)	Sp. Cond. (ms)	D. O. (ppm)	Temp. (°C)		
1142	5	5.87	.300	6.34	18.0		
1145	10	6.02	.348	6.20	17.8 17.6		
1151 1157	<u>20</u>	6.06	.341	6.49	17.6		
1137							
Depth to water aft	er purge: <u>11.75</u>	5 ft. below m.p.		Time: 1200	<u>.</u>		
Depth to water pri	or to sampling	g: <u>11.75</u> ft. below m	.p.	Time: <u>1200</u>			
Sample Appearance:  Turbid Slightly Turbid  Clear Oth					Other		
Sample Odor:	None None	0	ther				
IV. Sample Analyse Sample Parameters Metals:		Color, TDS, TSS ⊠ Filtered		☑ Unfiltere	ed		
Laboratory: Accute	<u>est</u>		Date Shipped: <u>7/19/02</u>				

### 3.0 GAC TREATMENT SYSTEM MONITORING PROGRAM (DGW)

Groundwater samples from the GAC unit influent, mid-point, and effluent sampling ports were analyzed for TCE and its breakdown products (1,1-DCE, cis/trans 1,2-DCE, and vinyl chloride), total and dissolved iron, lead, and zinc, TDS, and TSS. The analytical results are summarized in Table 1, Section 3.

The July 2002 GAC monitoring results are summarized below:

- The GAC influent sample contained TCE at 8.65  $\mu$ g/l. The mid-point sample contained TCE at 1.01  $\mu$ g/l. The effluent sample did not contain TCE at a concentration exceeding the 0.26  $\mu$ g/l laboratory reporting limit.
- Cis-1,2 dichloroethene, 1-1-dichloroethene, trans-1,2-dichloroethene and vinyl chloride were not detected in the influent, mid-point or effluent samples at concentrations greater than their respective laboratory reporting limits.
- Lead concentrations in the unfiltered influent, mid-point and effluent samples were  $2 \mu g/l$ ,  $1 \mu g/l$  and  $2 \mu g/l$ , respectively. Lead concentrations in the filtered samples were all  $1 \mu g/l$ .
- Zinc concentrations in the unfiltered influent, mid-point and effluent samples were  $110 \mu g/l$ ,  $30 \mu g/l$  and  $150 \mu g/l$ , respectively. Zinc concentrations in the filtered samples were  $80 \mu g/l$ ,  $20 \mu g/l$  and  $100 \mu g/l$ , respectively.
- Iron concentrations in the unfiltered influent, mid-point and effluent samples were 320  $\mu$ g/l, 30  $\mu$ g/l and 150  $\mu$ g/l, respectively. Iron concentrations in the filtered samples were 50  $\mu$ g/l, <20  $\mu$ g/l and <20  $\mu$ g/l, respectively.
- TDS concentrations in the influent, mid-point and effluent samples were 97 mg/l, 94 mg/l and 90 mg/l, respectively.

• TSS concentrations in the influent, mid-point and effluent samples were all <1 mg/l.

## LENOX CHINA FACILITY AND ADJACENT AREA POMONA, NEW JERSEY

#### **TABLE 1 SECTION 3**

## GAC TREATMENT SYSTEM SAMPLING RESULTS, JULY 2002

Sample ID Sample Date	Permit Limits	PO-GAC-INF 7/11/02	PO-GAC-MID 7/11/02	PO-GAC-EFF 7/11/02	Percent Removal
Volatile Organic Compounds (µg/l)					
Trichloroethene (TCE) 1,1-Dichloroethene cis-1,2-Dichloroethene trans-1,2-Dichloroethene Vinyl chloride	1.0 2.0 2.0 2.0 2.0 5.0	8.65 <0.24 <0.45 <0.12 <0.35	<0.24 <0.45 <0.12	<0.45 <0.12	NA NA NA
Metals (μg/l)	3.0			1	, /
Iron (Unfiltered) Iron (Filtered) Lead (Unfiltered) Lead (Filtered) Zinc (Unfiltered) Zinc (Filtered)	NL NL NL NL NL	320 50 2 <1 110 80	<20 <1 <1 30	<20 2 <1 150	NA NA NA
TDS (mg/l) TSS (mg/l)	NL NL	97 <1			

#### Notes:

μg/l - Micrograms per liter

NL - No limit

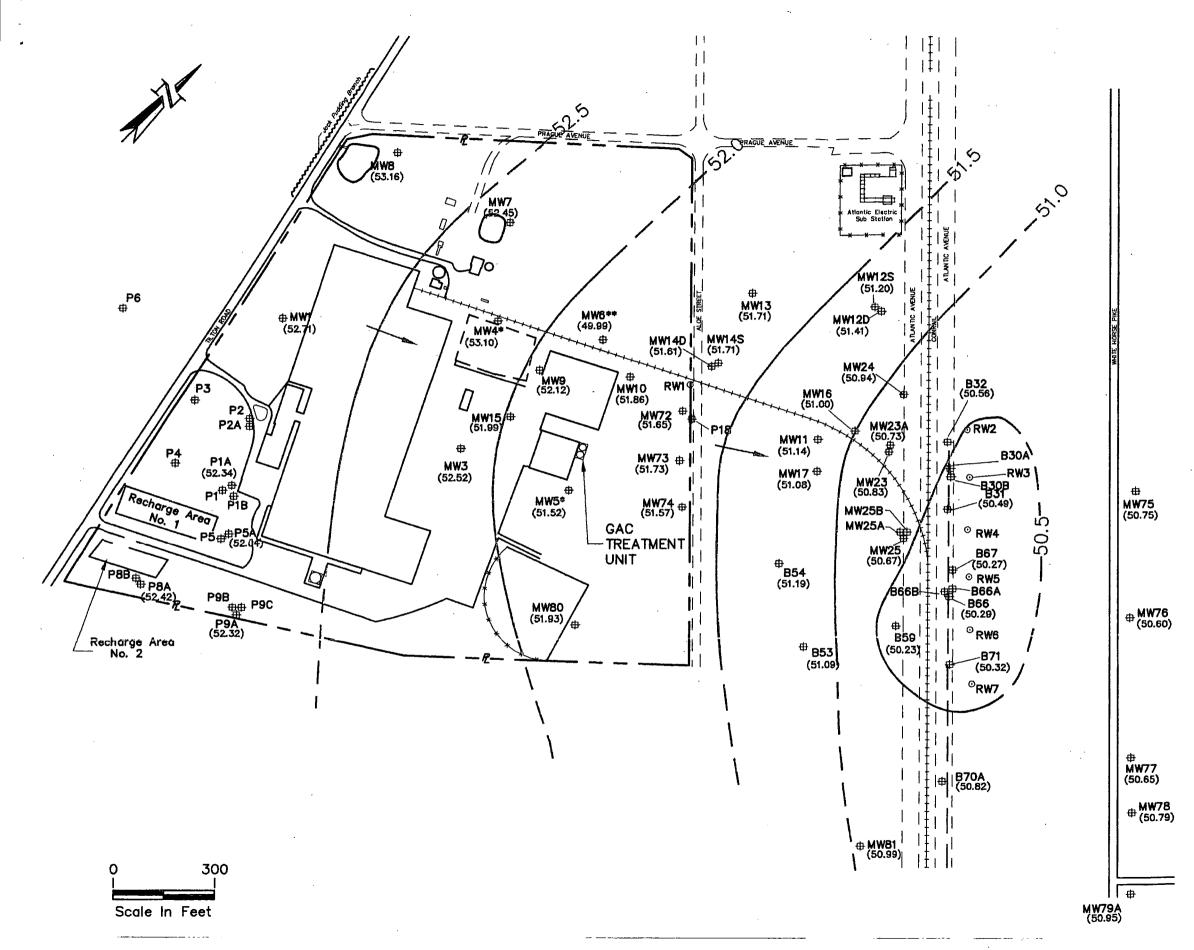
mg/l - Milligrams per liter

NA - Not applicable

Values in **bold** exceed the site specific Groundwater Quality Criteria of 1.0  $\mu$ g/l for TCE.

<sup>\* -</sup> Results less than the laboratory minimum detection limit were considered to be one half the minimum detection limit

FIGURE 1



## **LEGEND**

B66 (50.29) With Groundwater Elevation

RW5 O Location Of Recovery Well

Line Of Equal Water Level
51.0 —— Elevation In Feet Above MSL
(Dashed Where Inferred)

Groundwater Flow Direction

### NOTES:

Base map obtained from Geraghty & Miller's August 1992 Groundwater Monitoring Report.

- \* Anomalous reading consistent with previous measurements
- \*\* Anomalous reading inconsistent with previous measurements

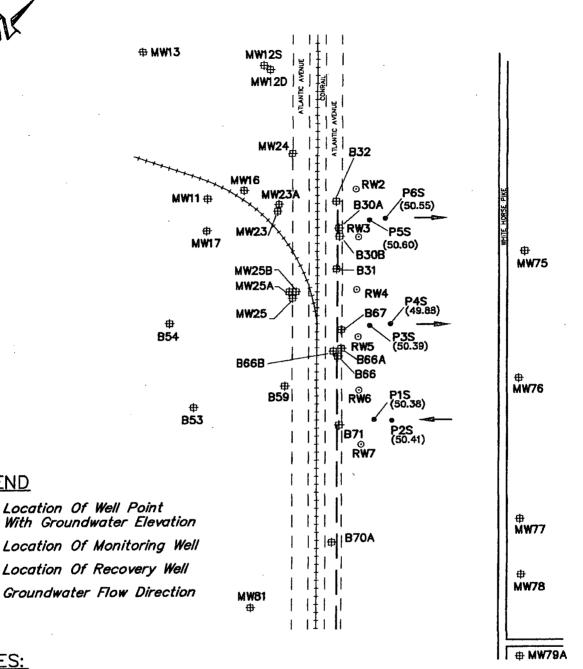
GROUNDWATER
FLOW MAP
JULY 17, 2002

--LENOX CHINA POMONA, NEW JERSEY

## **Cannett Fleming**

FIGURE 2





## **NOTES:**

LEGEND

P1S (50.38)

> B66 ⊕ RW5 ⊙

> > Base Map Obtained From Geraghty & Miller's August 1992 Groundwater Monitoring Report.

> > Remediation system was offline at time of groundwater gauging.

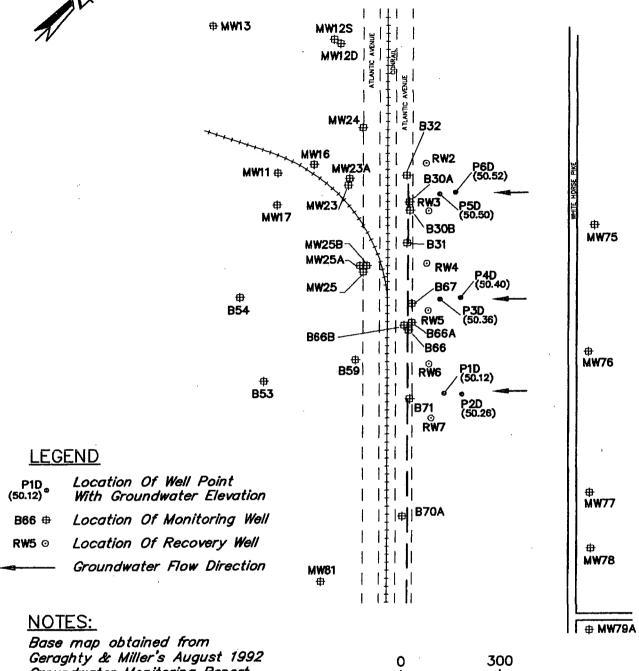


## GROUNDWATER FLOW MAP SHALLOW WELLS JULY 17, 2002

LENOX CHINA POMONA, NEW JERSEY

## **Connett Flemino**

FIGURE 3



Groundwater Monitoring Report.

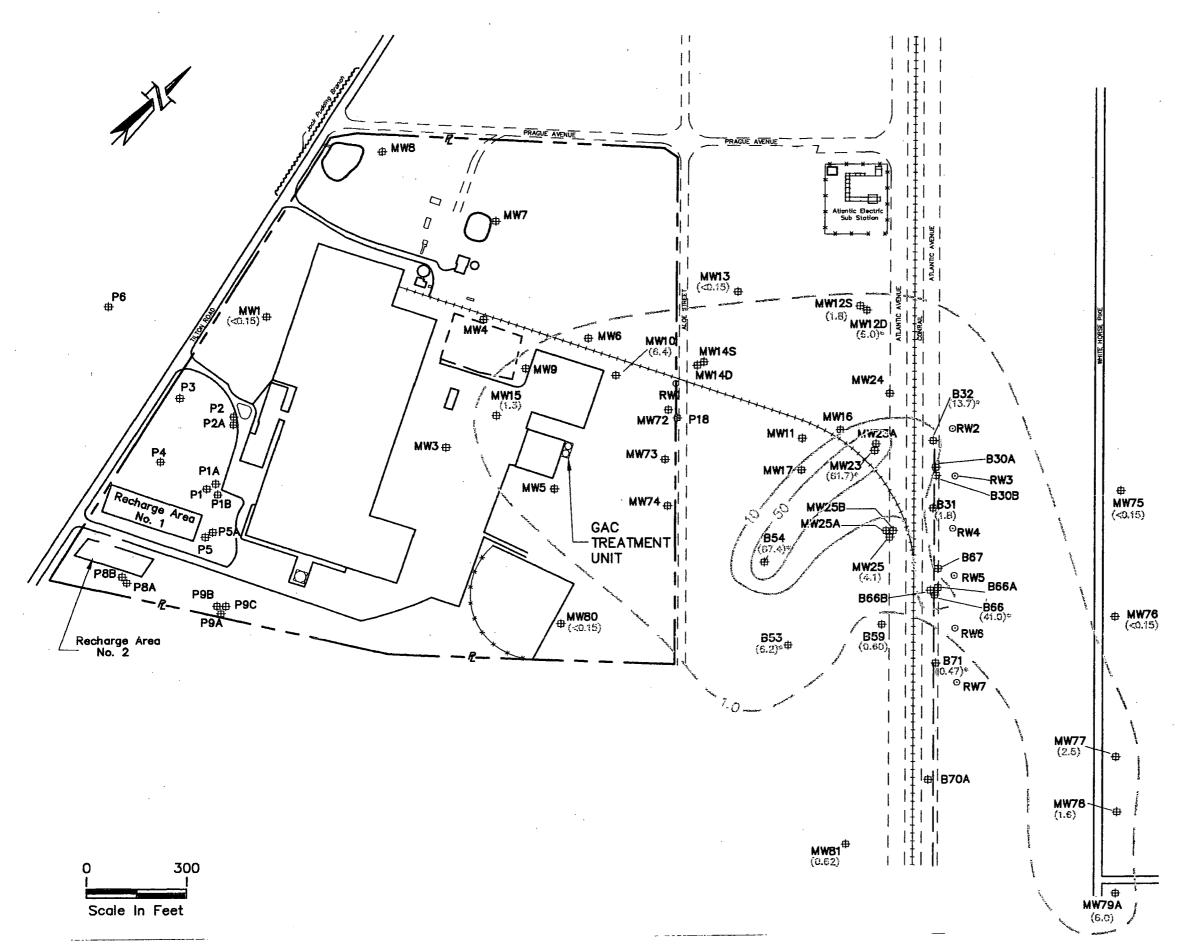
Remediation system was offline at time of groundwater gauging.



## FLOW

LENOX CHINA POMONA, NEW JERSEY

FIGURE 4



## **LEGEND**

RW5 o Location Of Recovery Well

Line Of Equal TCE
Concentration in ug/l
(Dashed Where Inferred)

### NOTE:

Base Map Obtained From Geraghty & Miller's August 1992 Groundwater Monitoring Report.

\* - Indicates results from April 2002 Sampling Event

# EXTENT OF FRICHLOROETHYLENE IN GROUNDWATER JULY 17-19, 2002

LENOX CHINA POMONA, NEW JERSEY



From Lenox Technical Services
Tilton Road
Pomona, New Jersey 08240

US Environmental Protection Agency Attn: Andrew Park Region 2 290 Broadway New York, NY 10007-1866

## October 1, 2002 Conference Call with Lenox China and NJDEP,

EPA: Barry Tornick, Andrew Park NJDEP: Frank Faranca, Daryl Clark

Lenox China: John Kinkela

Gannett Fleming, Inc.: James Barish

- \* The Township owns property downgradient from Burns (to the east of Burns). It would be easier for Lenox to access to the property for geoprobe sampling.
- \* The Township is all right for Lenox to conduct geoprobe sampling northeast along S. Menheim Ave. from the Burns.
- \* Once geoprobe northeast along Menheim Ave. is completed, further geoprobe sampling is expected perpendicular to Menheim Ave. to delineate the extent of plume.
- \* NJDEP approval is needed. An application was submitted in early September and 30-day turnaround.
- \* Groundwater monitoring wells to be installed along the White Horse Pike, to the east of MW-79A.
- \* Potential further remediation of groudwater due to TCE detected high than 5 ppb at MW-79A.
- Waiting for the completion of the sampling (monitoring wells and geoprobe) currently ongoing.
- Sampling expected in mid-October: Utility markups next week, DOT approval next.
- Data available in November with 30-day turnaround.
- Report or verbal heads-up in December 2002.
- \* Soil-Gas (Indoor Air):
- Lenox also conducting cis- & trans- screening while TCE sampling.
- \* Potential additional remedial measures (or proposal)
- A proposal may be submitted when the data/report is available.
- \* Scale map -township tax map w/iso-conc map to be submitted.
- \* Burns' well to be monitored quarterly and geoprobe sampling will also be conducted.

Andy Park

#### **Andy Park**

10/01/02 08:43 AM

To: Frank Faranca < Frank. Faranca@dep.state.nj.us>

cc: Daryl Clark < Daryl. Clark@dep.state.nj.us>,

John Kinkela@lenox.com

Subject: Re: TCE Sentinel Well Data

Barry and I will join in the conference call. Please call us at 212-637-4169. Or if you want us to call, let me know the call number.

Andrew Park
RCRA Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184
park.andy@epa.gov

Frank Faranca < Frank. Faranca@dep.state.nj.us>



Frank Faranca <Frank.Faranca@dep. state.nj.us>

09/30/02 11:50 AM

To: John\_Kinkela@lenox.com

cc: Daryl Clark < Daryl. Clark@dep.state.nj.us>, Andy

Park/R2/USEPA/US@EPA

Subject: Re: TCE Sentinel Well Data

#### \*\* High Priority \*\*

John,

Daryl and I will be available for a conference call Tomorrow at approximately 1000 Hours. We will call you. I think it would be good to get Andy in on the conference call as well.

#### Frank

\*\*\*\*\*\*\*\*

>>> <John Kinkela@lenox.com> 09/26/2002 5:55:21 PM >>>

#### Frank,

I have been reviewing and approving the Pomona DGW/MOA/TCE quarterly report

today. I have not had a chance to look at the data previously. I called to tell

you that the MW-79A result was 6 ppm on July 17. Please call me tomorrow and  $\ensuremath{\mathrm{I}}$ 

will update you further on the status of the CEA geoprobe investigation.

-Lenox applied to NJDOT about 15 days ago for a permit to put geoprobes in east

along the White Horse Pike (WHP) from MW-79A (About a 30 day response period).

-Galloway Township says no permit is necessary for geoprbe work along Mannheim

Ave.

-Lenox looked at the land downgradient of the Burns property. It turns out that

**Barry Tornick** 

To: Andy Park/R2/USEPA/US@EPA

09/30/02 02:05 PM

Subject: Re: lenox

CC:

The staff meeting is at 9AM so I should be available. Come by a little before 10AM.

Barry Tornick, Acting Chief RCRA Programs Branch U.S. Environmental Protection Agency Region 2 290 Broadway New York, NY 10007-1866 (212) 637-4169

Andy Park

**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

09/30/2002 12:32

cc:

PM

Subject: lenox

Lenox has informed NJDEP that the latest quarterly sampling conducted in July 2002 shows 6 ppb of TCE at MW-79A, the southernmost sentinel well. Lenox is currently conducting geoprobe sampling as their efforts of re-drawing of the CEA boundaries to the northeast of the site. I plan to participate in a conference call tomorrow (10/1) at 10:00 am with Lenox and NJDEP. Let me know if you want to join.



#### Frank Faranca <Frank.Faranca@dep. state.nj.us>

To: Andy Park/R2/USEPA/US@EPA

CC:

Subject: Fwd: TCE Sentinel Well Data

09/30/02 12:28 PM

\*\* High Priority \*\*

Andy, FYI Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028 phone: 609-984-4071 fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us

····· Message from John\_Kinkela@lenox.com on Thu, 26 Sep 2002 17:55:21 -0400 ·····

To: Frank.Faranca@dep.state.nj.

us

Subject TCE Sentinel Well Data

Frank,

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you that the MW-79A result was 6 ppm on July 17. Please call me tomorrow and I will update you further on the status of the CEA geoprobe investigation.

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-Lenox looked at the land downgradient of the Burns property. It turns out

a number of the lots belong to Galloway Township, in addition to the paper streets.

-Lenox will call for a markout next week on the WHP and Mannheim Ave. '-Galloway Township only requires 24-hour advance notice before doing geoprobe work on the streets or their property. They will allow Lenox to enter their property for the geoprobe investigation.

Gannett-Fleming will prepare and submit the scaled map by the end of next week for the geoprobe wells along the WHP and Mannheim Ave. and the wells on Galloway

Township property downgradient of the Burns property.

**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

09/30/02 12:32 PM

cc: Subject: lenox

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#### Frank Faranca <Frank.Faranca@dep. state.nj.us>

09/30/02 11:50 AM

To: John\_Kinkela@lenox.com

cc: Daryl Clark < Daryl. Clark@dep.state.nj.us>, Andy

Park/R2/USEPA/US@EPA

Subject: Re: TCE Sentinel Well Data

\*\* High Priority \*\*

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Township property downgradient of the Burns property.

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028 phone: 609-984-4071

**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

09/04/02 12:03 PM

cc:

Subject: Lenox China

In response to your question this morning, Lenox has confirmed that the service connection to the Burns property was completed on August 20, 2002; additional delay was due to homeowner's scheduling preferences.



"Kinkela, John" <John\_Kinkela@lenox .com> To: Andy Park/R2/USEPA/US@EPA cc: Frank.Faranca@dep.state.nj.us

Subject: Re: Lenox China

09/04/02 11:46 AM

Lenox confirms that the service connection to the Burns property was completed on August 20, 2002. The additional delay was incurred due to the homeowner's scheduling preferences. I was only waiting for confirmation of the exact date prior to e:Mailing the information to you.

**Andy Park** 

To: John\_Kinkela@lenox.com

09/04/02 10:39 AM

Subject: Re: Lenox China🖺

Mr. Kinkela,

In your message below, the installation was scheduled for July 26 or 27 and the service would be on the following week.

Please confirm that the installation has been completed and the service is on.

cc:

Thank you.

Andrew Park
RCRA Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184
park.andy@epa.gov

John\_Kinkela@lenox.com



John\_Kinkela@lenox. com

To: Andy Park/R2/USEPA/US@EPA

cc:

07/19/02 10:27 PM

Subject: Re: Lenox China

Mr. Park,

After long negotiations with the homeowner, a substantial wait for the water company to extend the lines and some scheduling difficulties with the plumbing contractor, I have been assured that the installation is firmly scheduled for July 26 or 27, 2002. The water company will set the meter and turn the service on during the following week.

····· Forwarded by Andy Park/R2/USEPA/US on 09/04/02 10:31 AM ·····

Andy Park

To: John Kinkela@lenox.com

07/16/02 10:18 AM

cc: Barry Tornick/R2/USEPA/US@EPA, frank.faranca@dep.state.nj.us

Subject: Lenox China

John,

Lenox said during the May 2002 meeting that a public water line was expected to be hooked up to one residence in a month. The information is needed to maintain the positive Human Exposures Controlled EI determination for the site. Please provide EPA with the latest update/status on this. Thank you.

Andrew Park RCRA Programs Branch U.S. Environmental Protection Agency Region 2 290 Broadway, 22nd Flr. **Andy Park** 

To: John\_Kinkela@lenox.com

09/04/02 10:27 AM

cc: Andy Park/R2/USEPA/US@EPA

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Andrew Park
RCRA Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
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212-637-4184
park.andy@epa.gov

John\_Kinkela@lenox.com



John\_Kinkela@lenox.

To: Andy Park/R2/USEPA/US@EPA

cc:

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Andrew Park RCRA Programs Branch U.S. Environmental Protection Agency Region 2



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540

Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

#### VIA FEDERAL EXPRESS

August 9, 2002 File #34290.001

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re: NJDEP August 1 Comment Letter

Tilton Road Pond Maintenance Activities

Lenox China, Pomona, New Jersey

Dear Mr. Faranca:

This letter provides the information requested in the joint New Jersey Department of Environmental Protection (NJDEP) and United States Environmental Protection Agency (USEPA) comment letter issued by NJDEP on August 1 concerning the maintenance activities to be performed on the Tilton Road pond at the Lenox facility.

1. The attached map shows the proposed dewatering pad, decontamination pad and post excavation sample locations. Initial gross dewatering of the bottom sediment will be done within the footprint of the pond. The sediment will be placed on plastic on the pond's east side and allowed to drain by gravity. The sediment will then be transferred to roll-off filter containers situated along the perimeter of the pond for further dewatering. Fluid from the dewatering process will be transferred by pump to two 20,000-gallon storage tanks as discussed under Item 4 below.

Mechanical equipment that comes in contact with the pond sediment will be washed within the footprint of the pond as an initial cleaning step. The equipment will then be moved to the curbed plant access ramp shown on the drawing for further cleaning. The ramp will be covered with reinforced poly to manage the wash water. Sediment and wash water from the cleaning process will then be transferred to the storage tanks discussed under Item 4 below.

#### **Cannett Fleming**

1

Frank Faranca New Jersey Department of Environmental Protection August 9, 2002

- 2 -

The post excavation sampling described in the July 23 plan was derived from the guidance outlined in the Technical Requirements for Site Remediation under 7:26E 6.4. As shown on the attached figure, the approximate locations of a uniform grid with 30-foot spacing will be established over the pond floor after the sediment removal is completed. The sample spacing and frequency is equivalent to the one sample per 900 square feet of excavation floor requirement described under the referenced citation. Sidewall samples will also be collected at a frequency of one sample per 30 feet of sidewall.

- 2. Post excavation sampling results will be compared to the 400-mg/kg residential NJDEP SCC for lead, rather than the 600-mg/kg criterion described in the July 23 plan.
- 3. After further review of the engineering requirements, Lenox has elected to eliminate non-contact cooling water and roof/parking area stormwater discharges to the Tilton Road pond during the course of the maintenance work. Lenox has discussed this modification to the July 23 plan with Mr. Suryakant Shah of the Bureau of Pretreatment and Residuals and Mr. Shah indicated that the Bureau concurred with the proposed change.
- 4. Fluid and sediment recovered from the dewatering and equipment cleaning operations will be collected in 500-gallon above grade storage tanks to be situated on the north side of the pond for transfer to one or two existing 20,000-gallon above grade storage tanks in the Lenox plant. The fluid will be managed to remove solids and lead particulates then characterized in a manner consistent with the process wastewater treatment operations performed at the plant. Prior to discharge, Lenox will discuss the nature, quantity and estimated duration of the discharge with ACUA. Lenox will also confirm that the discharge is compatible with the conditions and limitations imposed by its SIU permit. In the event that the fluid cannot be accepted by ACUA, Lenox will dispose of the liquid off site at an approved receiving facility. Lenox has discussed the ACUA and SIU issues with Mr. Nilesh Naik of the Bureau of Point Source Permitting Region 2 and Mr. Naik agreed with the approach being taken by Lenox.
- 5. At a minimum, the sediment removed from the pond will be analyzed for TCLP metals and TCE. The disposal facility that will receive the sediment will more than likely have its own material characterization requirements (i.e. chemical parameters and frequency of sampling) above and beyond this

#### **Connett Fleming**

 $\tilde{D}^{\chi}$ 

Frank Faranca New Jersey Department of Environmental Protection August 9, 2002

- 3 -

testing. A disposal facility has not yet been identified, as Lenox is still in the process of selecting a contractor to perform the sediment removal work. As a result, the exact nature of the characterization cannot be provided at this time. All analytical data will be submitted to NJDEP in the final closure report to the Department.

Please call or email John Kinkela of Lenox at 609-965-8272 or <u>John Kinkela@Lenox.com</u> if you have any questions.

Very truly yours,

GANNETT FLEMING, INC

JAMES M. BARISH, CPG

Project Manager/Senior Hydrogeologist

Attach.

cc: Andrew Park, USEPA, Region II)

Daryl Clark, NJDEP/DPFSR/BGWPA

Wayne Froelich, Environmental Regulation/ Bureau of Non-Point Pollution Control

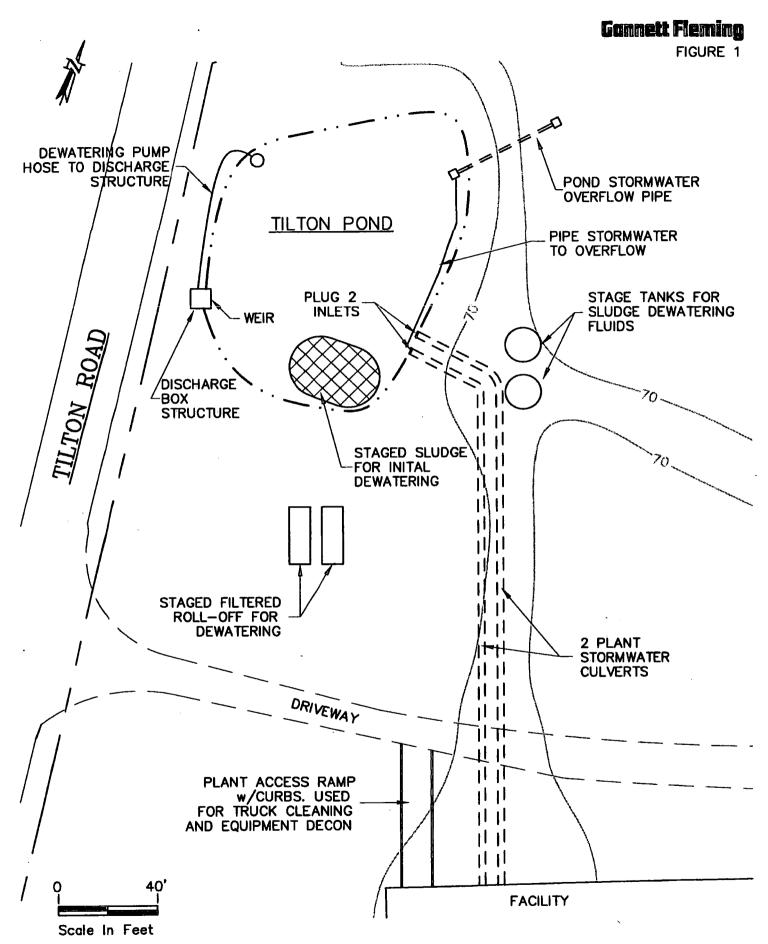
Suryakant Shah, NJDEP/Environmental Regulation/Bureau of Pretreatment & Residuals

Nilesh Naik, NJDEP/Environmental Regulation/Bureau of Point Source Permitting Region 2

Louis Fantin, Lenox China

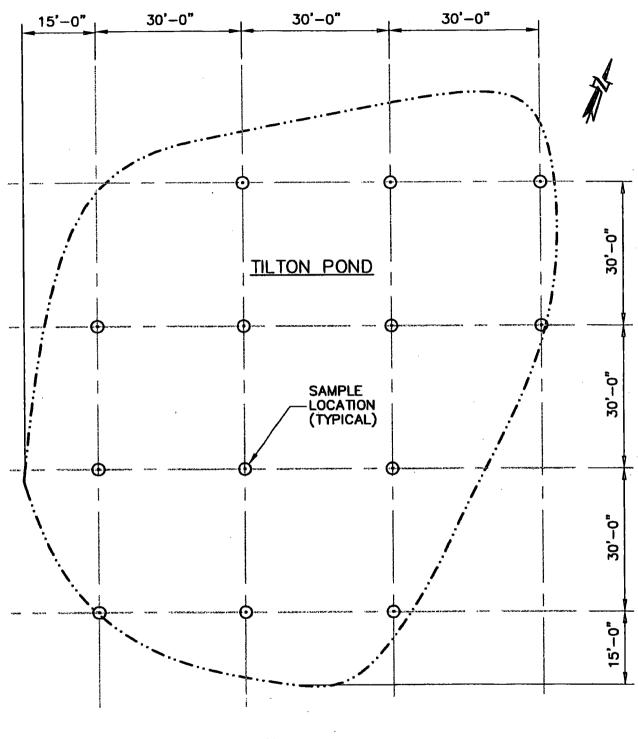
John Kinkela, Lenox China

Gary Berman



TILTON ROAD POND CLEANOUT

LENOX CHINA, INC. POMONA, NEW JERSEY





NOTE: SAMPLING LOCATIONS ARE APPROXIMATE

## PROPOSED POST EXCAVATION SOIL SAMPLING LOCATIONS

LENOX CHINA, INC. POMONA, NEW JERSEY



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540

Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

#### VIA FEDERAL EXPRESS

August 15, 2002 File #35221.001

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re:

Residential Well Records

Lenox China, Pomona, New Jersey

Dear Mr. Faranca:

In response to your August 9 email to Mr. John Kinkela, I have enclosed a copy of the well permit and construction record for the residential potable well at 360 South Mannheim Avenue (Burns property). As we discussed at our May 16 meeting NJDEP, the Atlantic County Department of Human Services and Galloway Township were unable to find any construction or permit documentation on the remaining two wells at 353 and 357 South Mannheim Avenue (Paulmeno and Heyes properties). A map showing the well locations is also enclosed.

Please call or email John Kinkela at Lenox (609-965-8272; John\_Kinkela@Lenox.com) if you have any questions.

Very truly yours,

GANNETT FLEMING, INC.

JAMES M. BARISH, PG

Project Manager/Senior Hydrogeologist

Enclosure

cc:

Andrew Park, USEPA

Daryl Clark, NJDEP

Lou Fantin, Lenox

John Kinkela, Lenox

Gary Berman

SERIAL # 29940 STATE OF NEW JERSEY DWA-133 DEPARTMENT OF ENVIRONMENTAL PROTECTION (7/89)Permis No. 36-13399
(Cell-in)

COORD #:36:00:60 8 DIVISION OF WATER RESOURCES O7 Fett TRENTON, N.J. Water Allocation PERMIT TO DRILL WELL CN 029 Trenton, N.J. 08625 VALID ONLY AFTER APPROVAL BY THE D.E.P. LUTTEL Main Street Republic Dismote of Wall Name of Facility . and of Orline SAME Capacity of Pump GPM (cable-root, rouny, ere Address \_ Use of Well (See Reverse) mestic Orleading Water Supply? LOCATION OF WELL Draw exerch showing distance and relations of well site to Lot neages public roads, streets, septic systems, etc. State Atles Map No. Morth WHERPY AND WELL 3 Emr iouth SEE REVERSE SIDE FOR INFORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PERMIT, APPROADL OF MADE SUBJECT TO ACCEPTANCE OF AND COMPLIANCE WITH THE FOLLOWING ADDITIONAL CONDITIONS. This Scace for Approval Stamp DOMESTIC PROPERTY MAIN SERVING WITH MAIN SERVING WITH MARC 7:10-121 st. sec. Public Consultativ Wine Supply Wills shall obtain our passentiates with NLIAC. 7:10-11.1et. etc. traction and operation persons from the Bureau of Sale Drinking Water in BELL PENENT REPRESENT THE Environmental Projection DOMESTIC SPREATEDM SUPPLY : No piging from the stell for which the pound applies what what any building. Batta Description of the column of the colum HEAT FRAME WITELES. Whitement has minimum of diplant apartisms traveled to preferred to the same supplier as it.

A two hour pumps was must be performed to the rates will at a rate of 1 % three the estimated circum film of water. INCLUSTRIAL GUIPPLY - A physical connection control partial shall be obtained participant to the provisions of NAAC. JUN 1 4 1990 7:10:101 A MG REPLACEMENT WILL - Existing and must be resid by a carbind New Jarray Statement well drive upon elegatorisms. TEST PURPOSES ONLY IRRIGATION PURPOSES ONLY THE AND - Will must be drived and caused to a minimum depth of 100 values the provinces of NLAC 7:00-0.04(e)A.v. den must GEOPHYSICAL, LODG of this well must be made. Permanent pumping equipment SYALL AICY to include until each loge are made. , least de champs ha madarial. SAMPLES of cultings required many ... Minestillé distance requirements un par N.J.A.C. 7:10-12-13 have not bean shet-was established both librari condition(s). in compliance with N.J.S.A. 56:4A-14, application is made for a parent to drill a well as described above.

COPIES:

When Allocation — White

Health Dept. -- Yellow

Staneture of Driller

Sloneture of Owner

Outror -- Blue

**WELPMT 006 3237** 

mo

75

Feet

Form DWR-138 11/85

## NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF WATER RESOURCES

PACE 1 OF 2-

#### WELL RECORD

•		Well Permit No	35 13377 36 02 628 N
	elfng, sam	Man duna Charlemen	
OWNER IDENTIFICATION - Owner	360 MANHEIM AVE.		
Address	GALLOWAY	Stato	NJ Zio Code
Only		~* 0:4fp	24 0000
WELL LOCATION - If not the some owner p			
County ATLANTIC	Municipality GRLL Due	TWP Los	No. 1 Black No. 463
WELL USE DOMESTIC T	FEDHUSTAMENT		USE
WATER USESUPPLY	Average	gals, dally	Maximum pals, deily
WELL CONSTRUCTION Date	to well completed 3 / 30	190	
BOREHOLE DIMENSIONS Des	oths: Total	Finishedft	
		ottom indetermined using	ESTIMATE
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DEPTH 70 70Р (FT.)		METEA (ML)	TYPE AND MATERIAL Bernene: Noire Blot Bize(s)
Casing 1	61	4	F480 PVC
Casing 2			
Caring 3			
Screen I.		4	,012 PVC
Screen 2		<del></del>	
Tail Piaco Grovel Posts		8	UNTURAL
Grout S			BUNTONITE
Grouting Method 284	FEDRE		
WELL FLOWS NATURALLY Water rises to	gels, per mia. ot	ft. above the land surface	<b>a.</b>
	n Date 5   30   9	^	
RECORD OF TEST  Static water-level before pumping 3	_	ter level 3	fi, below land surface afterhrs. of pumping.
Water level was measured using		ewdown	
Discharge rate measured using were	TACKST Die		gels. per min.
Wall was aumoad using	Spe Spe	cific Capacity	gals, per min, per ft, of drawdown
Observed effects on nearby swells	NONE		
Water Quality (tests, adar, color, etc.)	GOOD, NOWE &	LEAR.	
PERMANENT PUMPING EQUIPMENT	Installed by	ses_	Purp Typs
Mira Nama		Model	
GAPACITY: Pump delivers		- · · ·	
POWER: HP at	RPM Power Sour		ft.
DEPTHS: Pump ft.	Footpiecoft.	Airline	<del></del> ·-
FLOW METER: Model		italian ou	III. Billitaras Aika:
CONTRACTOR - Name of Drilling Contrac	tor_HICHER_TURNER		The state of the s
City PORT REPUB	LIC	State A	J. Zip Code 08247
Name of Drillet M. T. CI/E	1-5	OLUIN	License No. 1250
Manual At Athles			
M-A	J. Jum	_	Date 6, 19, 50
Signature of Contractor			
COPIES:	White - DEP Canary - Driller	Pink - Owner	Goldenrod - Hearth Dept.

Form DWR-138 11/85

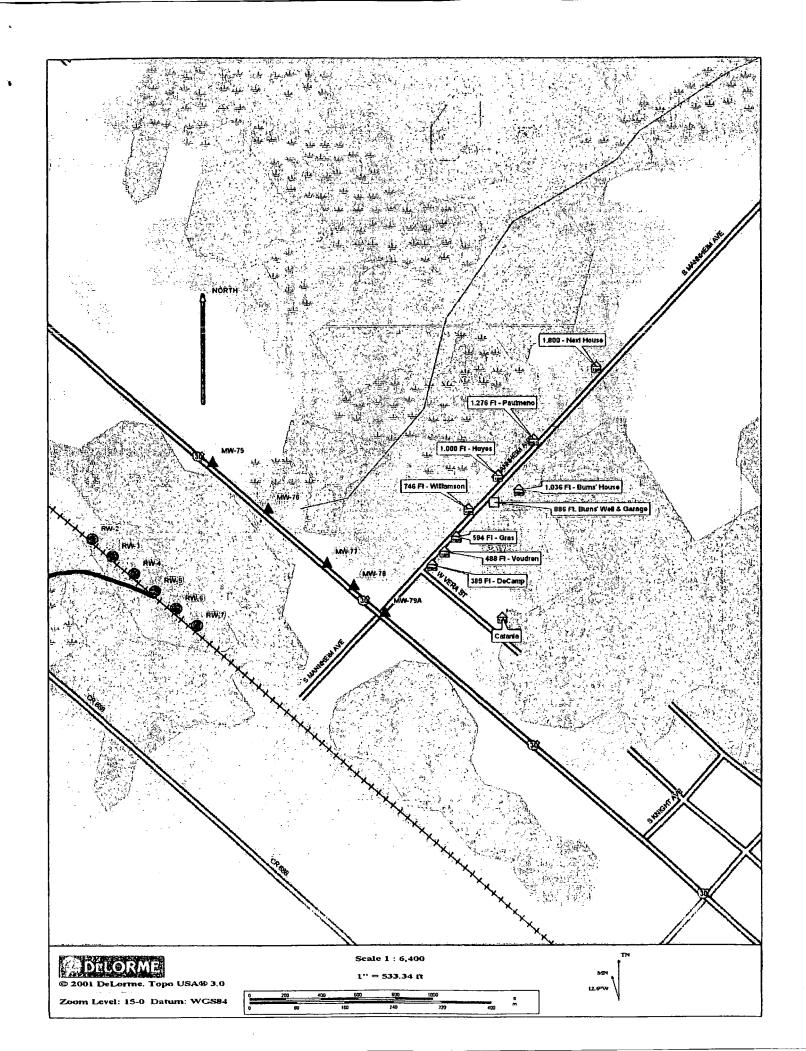
## NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF WATER RESOURCES

PAGE 2 OF 2

WELL RECORD

Well Permit No. 36 - 13899

		<u></u>	1000°
Driller: Please use the space below for the log description. Note water bearing zones or geological formation.		DRP USE ONLY	
Are ramples evelleble?	Storet Hydrogeo Cod	lo	
	USGS Hydrogeo Cod	a	
Drilling Method Rottine y	Depth to Budrock .	ft.	• .
•	Bedrock Lith, Code .		
Type of Rig TOPHEND	.   Bedrock Fm. Code _		
Aquiter/Geo. Fm.	Completed by		
		_//	
•	[ ·	, , ,	•
LDG	Thick.	Lith.	Fm.
	Į.		
O-1 TOPSOL	4		
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		<del></del>	
90-50 ORUC THE GAND IN STONES		<del></del>	<del></del>
50-60 CRYC THE GANDQUIT GAND	, ———		
60-70 WH RTHN US GAND		<del></del>	
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GWPI No NJPD	ES No	· <del></del>	
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To: Daryl Clark <Daryl.Clark@dep.state.inj.us>, Nilesh Naik <Nilesh.Naik@dep.state.nj.us>, Suryakant Shah <Suryakant.Shah@dep.state.nj.us>, Wayne Froehlich <Wayne.Froehlich@dep.state.nj.us>, Andy Park/R2/USEPA/US@EPA

cc: John\_Kinkela@Lenox.com

Subject: Fwd: Lenox China Tilton Rd Pond Cleanout

\*\* High Priority \*\*

Gentlemen,
Attached please find a response letter from Lenox regarding the above.
My only suggestion to Lenox is that they will need to collect
post-excavation sidewall samples in addition to the proposed bottom
post-excavation samples. I have asked Lenox to make sure that the
revisions are acceptable to all. I will be on vacation starting on
Friday and will not be back until September 2, therefore, if you have
concerns please articulate them directly to Lenox. Thank you.
Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028 phone: 609-984-4071 fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us

---- Message from "Barish, James M." <jbarish@GFNET.com> on Wed, 7 Aug 2002 17:29:50 -0400 ----

To: "Faranca, Frank (E-mail)" <FFARANCA@dep.state.nj.us>

cc: "Gary Berman (E-mail)" <gwbemb@aol.com>, "John Kinkela (E-mail)" <John\_Kinkela@Lenox.com>

Subject Lenox China Tilton Rd Pond Cleanout

Frank, attached for your review is the letter and associated attachments responding to NJDEP's/USEPA's August 1 letter concerning the Tilton Rd cleanout plan. John will call you tomorrow to discuss. Please forward the document to the other parties as appropriate. We can send the final copy to you on Friday.

Thanks.

Jim

James M. Barish, CPG
Project Manager/Senior Hydrogeologist
Gannett Fleming, Inc.
202 Wall Street
Princeton, NJ 08540
tel 609-279-9140
fax 609-279-9436

jbarish@gfnet.com







Faranca080702.do figures.PD Frank Faranca.v

#### **VIA FEDERAL EXPRESS**

August 7, 2002 File #34290.001

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re: NJDEP August 1 Comment Letter

Tilton Road Pond Maintenance Activities

Lenox China, Pomona, New Jersey

Dear Mr. Faranca:

This letter provides the information requested in the joint New Jersey Department of Environmental Protection (NJDEP) and United States Environmental Protection Agency (USEPA) comment letter issued by NJDEP on August 1 concerning the maintenance activities to be performed on the Tilton Road pond at the Lenox facility.

1. The attached map shows the proposed dewatering pad, decontamination pad and post excavation sample locations. Initial gross dewatering of the bottom sediment will be done within the footprint of the pond. The sediment will be placed on plastic on the pond's east side and allowed to drain by gravity. The sediment will then be transferred to roll-off filter containers situated along the perimeter of the pond for further dewatering. Fluid from the dewatering process will be transferred by pump to two 20,000-gallon storage tanks as discussed under Item 4 below.

Mechanical equipment that comes in contact with the pond sediment will be washed within the footprint of the pond as an initial cleaning step. The equipment will then be moved to the curbed plant access ramp shown on the drawing for further cleaning. The ramp will be covered with reinforced poly to manage the wash water. Sediment and wash water from the cleaning process will then be transferred to the storage tanks discussed under Item 4 below.

The post excavation sampling described in the July 23 plan was derived from the guidance outlined in the Technical Requirements for Site Remediation under 7:26E 6.4. As shown on the attached figure, the approximate locations of a uniform grid with 30-foot spacing will be established over the pond floor after the sediment removal is completed. The sample spacing and frequency is equivalent to the one sample per 900 square feet of excavation floor requirement described under the referenced citation.

- 2. Post excavation sampling results will be compared to the 400-mg/kg residential NJDEP SCC for lead, rather than the 600-mg/kg criterion described in the July 23 plan.
- 3. After further review of the engineering requirements, Lenox has elected to eliminate non-contact cooling water and roof/parking area stormwater discharges to the Tilton Road pond during the course of the maintenance work. Lenox has discussed this modification to the July 23 plan with Mr. Suryakant Shah of the Bureau of Pretreatment and Residuals and Mr. Shah indicated that the Bureau concurred with the proposed change.
- 4. Fluid and sediment recovered from the dewatering and equipment cleaning operations will be collected in 500-gallon above grade storage tanks to be situated on the north side of the pond for transfer to one or two existing 20,000-gallon above grade storage tanks in the Lenox plant. The fluid will be managed to remove solids and lead particulates then characterized in a manner consistent with the process wastewater treatment operations performed at the plant. Prior to discharge, Lenox will discuss the nature, quantity and estimated duration of the discharge with ACUA. Lenox will also confirm that the discharge is compatible with the conditions and limitations imposed by its SIU permit. In the event that the fluid cannot be accepted by ACUA, Lenox will dispose of the liquid off site at an approved receiving facility. Lenox will discuss the ACUA and SIU issues with Mr. Nilesh Naik of the Bureau of Point Source Permitting Region 2 before the work begins.
- 5. At a minimum, the sediment removed from the pond will be analyzed for TCLP metals and TCE. The disposal facility that will receive the sediment will more than likely have its own material characterization requirements (i.e. chemical parameters and frequency of sampling) above and beyond this testing. A disposal facility has not yet been identified, as Lenox is still in the process of selecting a contractor to perform the sediment removal work. As a result, the exact nature of the characterization cannot be provided at this time. All analytical data will be submitted to NJDEP in the final closure report to the Department.

Please call or email John Kinkela of Lenox at 609-965-8272 or John\_Kinkela@Lenox.com <mailto:John\_Kinkela@Lenox.com> if you have any questions.

Very truly yours,

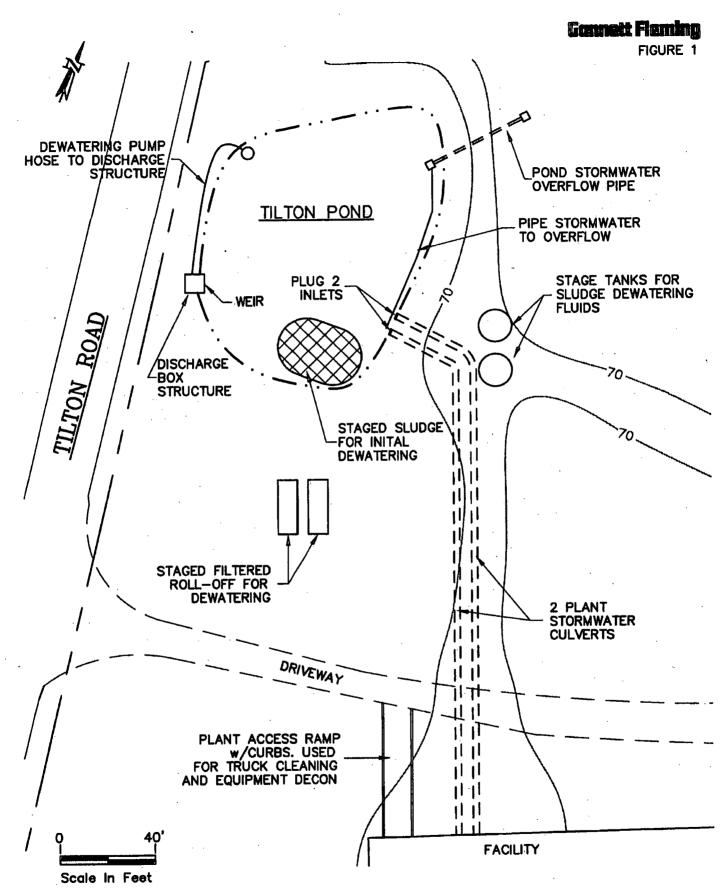
GANNETT FLEMING, INC.

JAMES M. BARISH, CPG Project Manager/Senior Hydrogeologist

Attach.

cc: Andrew Park, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA
Wayne Froelich, Environmental Regulation/ Bureau of Non-Point Pollution

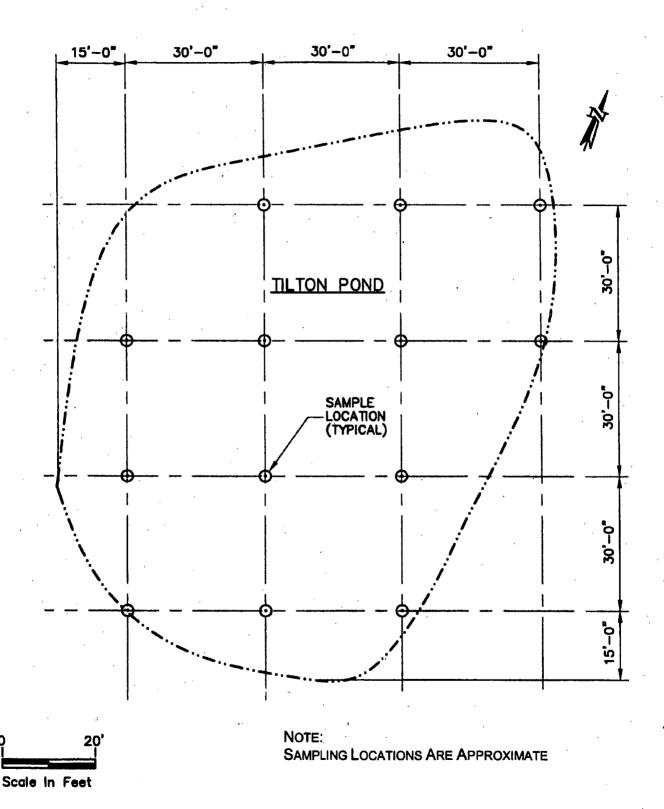
Control
Suryakant Shah, NJDEP/Environmental Regulation/Bureau of Pretreatment & Residuals
Nilesh Naik, NJDEP/Environmental Regulation/Bureau of Point Source
Permitting Region 2
Louis Fantin, Lenox China
John Kinkela, Lenox China
Gary Berman



TILTON ROAD POND CLEANOUT LENOX CHINA, INC.

ENOX CHINA, INC. POMONA, NEW JERSEY

530-7ASITE 080802



PROPOSED POST EXCAVATION SOIL SAMPLING LOCATIONS

LENOX CHINA, INC. POMONA, NEW JERSEY



James E. McGreevey

Governor

Department of Environmental Protection

Bradley M. Campbell Commissioner

August 1, 2002

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

AUG 0 2 2002

Dear Mr. Fantin:

Re: I

Lenox China Facility

Tilton Road Pond Maintenance Activity Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received your July 23, 2002 correspondence regarding the above referenced activity. The regulatory agencies have determined that the proposed activity is approved with the following modifications and clarifications:

- 1. Lenox shall be required to submit a detailed drawing depicting the locations of the dewatering pad, decontamination pad and the proposed post-excavation sampling locations. These post-excavation sampling locations need to be consistent with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E et. seq.
- 2. Lenox is advised that the proposed excavation criterion of 600 mg/kg for lead is the New Jersey Non-Residential Direct Contact Cleanup Criteria. If this is used for compliance, a deed notice will be required. If however, Lenox elects to use the New Jersey Residential Direct Contact Cleanup Criteria (400 mg/kg for lead), the institutional control will not be necessary.
- 3. The Bureau of Point Source Permitting Region 2 has indicated that they need to be contacted in regards to diverting the pond influent. Specifically, they need information on any temporary piping associated with rerouting flow to the surface water outfall. Suryakant Shah is the contact in this bureau. His phone number is 609-292-4860.
- 4. The Bureau of Pretreatment and Residuals raised some issues with respect to discharges directed to the ACUA (such as fluid recovered by the dewatering process). Specifically, Lenox has an SIU permit which was issued based upon certain information provided in an application. The SIU program needs to know the answers to several questions as follows: What is the quantity of this material and what will be the duration of the discharge? Is the "fluid from the dewatering process"
- consistent with the "process wastewater" which was approved for discharge to the ACUA, and for which the conditions in the permit were based on? Will this material be sent through the on-site treatment system prior to discharge to the ACUA? Has the ACUA approved of the discharge and will the discharge meet the SIU permit limitations? Nilesh Naik is the SIU contact. His phone

number is 609-633-3823.

5. The Department would like clarification from Lenox on the list of specific compounds on testing the sludge removed for disposal. The Lenox correspondence was vague as to what tests are planned to run, how many samples are to be obtained, and from where. Lenox shall clarify this information. Tony Pilawski is the contact in the Bureau of Pretreatment and Residuals, he can be reached at (609) 633-3823.

Lenox shall submit the requested information within 7 calendar days in order to meet the aggressive construction schedule. With the submission of item 1 above and the clarification on item 2, this will satisfy the needs of the Site Remediation Program. Please contact the specific Department individuals listed above with respect to the needs of their particular program

Should you have any questions, please contact me at (609) 984-4071 or email at frank.faranca@dep.state.nj.us

Sincerely,

Frank Faranca, Project Manager Bureau of Case Management

S. J. W. S.

C: Andrew Park, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA
Wayne Froelich, Environmental Regulation/Bureau of Non-Point Pollution Control
Suryakant Shah, NJDEP/Environmental Regulation/Bureau of Pretreatment & Residuals
Nilesh Naik, NJDEP/Environmental Regulation/Bureau of Point Source Permitting Region 2
Tony Pilawski, Bureau of Pretreatment and Residuals



Frank Faranca <Frank.Faranca@dep. state.nj.us>

08/01/02 10:00 AM

To: John\_Kinkela@Lenox.com

cc: Daryl Clark <Daryl.Clark@dep.state.nj.us>, Nilesh Naik <Nilesh.Naik@dep.state.nj.us>, Suryakant Shah

<Suryakant.Shah@dep.state.nj.us>, Wayne Froehlich

<Wayne.Froehlich@dep.state.nj.us>, Andy

Park/R2/USEPA/US@EPA

Subject: Tilton Road Pond Maintenance Activity

\*\* High Priority \*\*

John, Attached please find a correspondence that we are issuing today. Hard copy to follow in the mail. FYI Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028

phone: 609-984-4071 fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us

Tilton Road Pond.d Frank Faranca.v

August 1, 2002

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re: Lenox China Facility

Tilton Road Pond Maintenance Activity Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received your July 23, 2002 correspondence regarding the above referenced activity. The regulatory agencies have determined that the proposed activity is approved with the following modifications and clarifications:

- 1. Lenox shall be required to submit a detailed drawing depicting the locations of the dewatering pad, decontamination pad and the proposed post-excavation sampling locations. These post-excavation sampling locations need to be consistent with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E et. seq.
- 2. Lenox is advised that the proposed excavation criterion of 600 mg/kg for lead is the New Jersey Non-Residential Direct Contact Cleanup Criteria. If this is used for compliance, a deed notice will be required. If however, Lenox elects to use the New Jersey Residential Direct Contact Cleanup Criteria (400 mg/kg for lead), the institutional control will not be necessary.
- 3. The Bureau of Pretreatment & Residuals has indicated that they need to be contacted in regards to diverting the pond influent. Specifically, they need information on any temporary piping associated with rerouting flow to the surface water outfall. Survakant Shah is the contact in this bureau. His phone number is 609-292-4860.
- 4. The Bureau of Point Source Permitting Region 2 raised some issues with respect to discharges directed to the ACUA (such as fluid recovered by the dewatering process). Specifically, Lenox has an SIU permit which was issued based upon certain information provided in an application. The SIU program needs to know the answers to several questions as follows: What is the quantity of this material and what will be the duration of the discharge? Is the "fluid from the dewatering process" consistent with the "process wastewater" which was approved for discharge to the ACUA, and for which the conditions in the permit were based on? Will this material be sent through the on-site treatment system prior to discharge to the ACUA? Has the ACUA approved of the discharge and will the discharge meet the SIU permit limitations? Nilesh Naik is the SIU contact. His phone number is 609-633-3823.
- 5. The Department would like clarification from Lenox on the list of specific compounds on testing the sludge removed for disposal. The Lenox correspondence was vague as to what tests are planned to run, how many samples are to be obtained,

and from where. Lenox shall clarify this information.

Lenox shall submit the requested information within 7 calendar days in order to meet the aggressive construction schedule. With the submission of item 1 above and the clarification on item 2, this will satisfy the needs of the Site Remediation Program. Please contact the specific Department individuals listed above with respect to the needs of their particular program

Should you have any questions, please contact me at (609) 984-4071 or email at frank.faranca@dep.state.nj.us

Sincerely,

Frank Faranca, Project Manager Bureau of Case Management

C: Andrew Park, USEPA, Region II Daryl Clark, NJDEP/DPFSR/BGWPA

Wayne Froelich, Environmental Regulation/ Bureau of Non-Point Pollution Control

Suryakant Shah, NJDEP/Environmental Regulation/Bureau of Pretreatment & Residuals

Nilesh Naik, NJDEP/Environmental Regulation/Bureau of Point Source Permitting Region 2



#### Frank Faranca <Frank.Faranca@dep. state.nj.us>

To: John\_Kinkela@Lenox.com cc: Andy Park/R2/USEPA/US@EPA

Subject: Fwd: Tilton Road Pond Maintenance Activities

07/26/02 08:30 AM

\*\* High Priority \*\*

John.

Attached please find an email from Andy Park. He is correct with respect to the need to establish a deed notice if you want to achieve the NJNRDCSCC. Anything above that will require an engineering control as well. I suggest that you try to achieve the Residential Direct Contact Cleanup Criteria so that you do not have to deal with the deed notice. Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028

phone: 609-984-4071 fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us

..... Message from Park.Andy@epamail.epa.gov on Thu, 25 Jul 2002 17:12:14 -0400 .....

To: frank.faranca@dep.state.nj.us cc: Tornick.Barry@epamail.epa.gov

Subject Tilton Road Pond Maintenance

: Activities

Frank,

I have reviewed the Tilton Road Pond Maintenance Activities dated July 23, 2002. It states that lead and zinc were detected in the clay at levels exceeding the NJDEP Non-Residential Direct Contact Soil Cleanup Criteria and that the underlying soil also contained lead and zinc. It further says that the scope of additional sediment removal and post cleanup sampling will be determined to the extent of the NRDCSCC.

This contradicts our determination of "No Further Action Needed" made in our 1997 HSWA permit on the SWMU and also the RFI report which our determination was based on. If this unit is to be cleaned up to the NRDCSCC, a deed restriction must be imposed and maintained after the cleanup on the area with the contamination higher than the Residential Direct Contact Cleanup Criteria.

If you have any questions or require more information, please contact me.

Andrew Park
RCRA Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184
park.andy@epa.gov

**Andy Park** 

To: frank.faranca@dep.state.nj.us

07/25/02 05:12 PM

cc: Barry Tornick/R2/USEPA/US@EPA
Subject: Tilton Road Pond Maintenance Activities

Frank,

I have reviewed the Tilton Road Pond Maintenance Activities dated July 23, 2002. It states that lead and zinc were detected in the clay at levels exceeding the NJDEP Non-Residential Direct Contact Soil Cleanup Criteria and that the underlying soil also contained lead and zinc. It further says that the scope of additional sediment removal and post cleanup sampling will be determined to the extent of the NRDCSCC.

This contradicts our determination of "No Further Action Needed" made in our 1997 HSWA permit on the SWMU and also the RFI report which our determination was based on. If this unit is to be cleaned up to the NRDCSCC, a deed restriction must be imposed and maintained after the cleanup on the area with the contamination higher than the Residential Direct Contact Cleanup Criteria.

If you have any questions or require more information, please contact me.

Andrew Park
RCRA Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184
park.andy@epa.gov



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540 Office: (609) 279-9140

Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

#### VIA FEDERAL EXPRESS

July 23, 2002 File #34290.001

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re:

Tilton Road Pond Maintenance Activities

Lenox China, Pomona, New Jersey

Dear Mr. Faranca:

Lenox China intends to commence routine maintenance to remove bottom sediment from the Tilton Road Pond stormwater management unit starting on or about August 15, 2002. As lead has been not been used in the plant since January 1999, this will constitute the last time lead containing sludge will be removed from the pond. Accordingly Lenox proposes to sample the bottom of the pond after removing the sludge to demonstrate that it no longer contains lead. As more fully described below, the work will consist of diverting the pond influent; dewatering the pond to expose the bottom sediment; removing, characterizing and disposing of the sediment at an appropriate off-site facility; and sampling the pond floor, to document the effectiveness of the sediment removal. Lenox will submit the results from these samples in a report suitable for closure.

#### **Background**

The Tilton Road Pond was constructed as part of the original plant in 1954 and served as an erosion and sediment control pond during site development. After plant startup, the pond received non-contact cooling water, treated sanitary wastewater, treated industrial wastewater and stormwater. The pond received treated industrial wastewater from the early 1970s until 1992. Lenox terminated the sanitary wastewater discharge in 1987, when the plant was connected to the municipal sewer system. Since 1992, the pond has only received non-contact cooling water and stormwater runoff.

#### **Gannett Fleming**

Frank Faranca New Jersey Department of Environmental Protection July 23, 2002

- 2 -

The pond was identified as Solid Waste Management Unit (SWMU) No. 5 during the RCRA Facility Investigation performed by Eder Associates (now Gannett Fleming) in 1994. Soil and groundwater samples from areas outside and adjacent to the pond, and surface water from the pond, did not contain chemical constituents at levels of concern. Sediment cores from the pond floor showed that the upper six to eight inches consisted of an organic rich clay layer underlain by fine to coarse sand. Lead and zinc were detected in the clay at levels exceeding the NJDEP Non-Residential Direct Contact Soil Cleanup Criteria (SCC). The underlying soil also contained lead and zinc, but at much lower concentrations that were less than the comparison criteria.

The RFI report concluded that the lead and zinc constituents in the pond sediment were not having an adverse effect on soil and groundwater quality and that no other investigation or remedial actions were warranted. The report further indicated that when or if the sediment is removed from the pond as part of routine maintenance activities, the sediment would be disposed of accordingly. NJDEP and USEPA concurred with the RFI findings and indicated in the final HSWA permit issued in 1997 that "[t]he investigation conducted on sludge and aqueous liquid (mostly water) in the unit showed no discernable constituents. No further action needed."

The Bureau of Operational Ground Water Permits has subsequently issued NJPDES Permit No. 0070343, effective July 1, 2002. The Residuals Management section of the permit requires Lenox' "submittal of a plan for sampling and analysis of the sludge accumulated in the surface impoundment, as well as a plan for cleaning out the sludge from the surface impoundment". Lenox believes that the routine maintenance proposed in this document, coupled with sampling the sludge prior to disposal, will fulfill the requirements of the permit.

#### Pond Sediment Removal Plan

The following briefly describes the work that will be done to remove and dispose of the sediment in the Tilton Road Pond.

<u>Influent Diversion</u> — Current discharges to the pond (non-contact cooling water and stormwater) will be temporarily diverted during the sediment removal work. Lenox will minimize or eliminate discharge of the non-contact cooling water during the project. Temporary piping will be used to reroute stormwater and any non-contact cooling water influent directly to the discharge culverts underlying Tilton Road.

<u>Pond Dewatering</u> – The discharge weir at the pond outfall will be lowered to initiate the removal of standing water in the pond. A submersible pump will then be installed to supplement the dewatering. The pumping rate will be controlled to minimize disturbing

#### **Cannett Fleming**

Frank Faranca New Jersey Department of Environmental Protection July 23, 2002

- 3 -

the bottom sediment, and hay bails or other controls will be used at the point of discharge to minimize sedimentation.

<u>Sediment Removal</u> – A Bobcat<sup>©</sup> or similar earth moving equipment will be used to remove the bottom sediment, which has been estimated at approximately six to eight inches thick based on previous field investigations. The clay will be placed in a roll-off filter container, which will allow the sludge to dewater. Fluid recovered by the dewatering process will ultimately be directed to the Atlantic County Utility Authority's publicly owned treatment works.

An equipment decontamination pad will be established within the pond to clean the frontend loader and other equipment used during the cleanout work. Vehicle tires and frames will be pressure washed to remove accumulated debris. The wash water and sediment will be managed and containerized as above.

Field activities will be performed in Level D protective clothing that, at a minimum, will consist of appropriate work attire, gloves and safety boots. Tyvek, overboots or other disposal protective equipment may also be used and will be containerized and properly disposed.

#### Sludge Disposal

The pond sediment will be characterized in accordance with the residuals management requirements of Permit No. 0070343 and as required by the disposal facility and transported under appropriate manifest documentation. Previous testing indicates that the sediment is classified as non-hazardous. Copies of the analytical results and manifests will be provided to NJDEP at the conclusion of the project.

Post Cleanup Sampling – To document the effectiveness of the sediment removal, samples of the underlying native soil will be collected and analyzed for lead and zinc. A uniform grid with 30-foot spacing will be established over the pond floor. One soil sample from the upper six-inch interval at each grid node will be collected using a clean, stainless steel trowel and placed in containers provided by the laboratory. The trowel will be cleaned before use and after collecting each sample. Each sampling location will be staked for identification. To account for the variability of soil samples, Lenox will take

four (4) samples within a one (1) foot radius of each sampling point. One of these samples will be chosen at random for testing. If that sample is high, the three remaining samples will be individually tested and the four results averaged (per the attached procedure).

#### **Cannett Fleming**

Frank Faranca New Jersey Department of Environmental Protection July 23, 2002

- 4 -

The laboratory data will be compared to the NJDEP SCC of 600 mg/kg for lead and 1,500 mg/kg for zinc. The need for and scope of additional sediment removal and post cleanup sampling will be determined based on this comparison. The pond will be returned to service after the maintenance activities are completed.

Lenox will issue a letter to NJDEP summarizing the results from the cleanout work, including photographs documenting the field activities; sediment characterization and transport manifest documentation; and post cleanout sampling results. Lenox will notify NJDEP approximately ten days before the work begins.

A copy of this letter is being sent to Mr. Andrew Park, USEPA for informational purposes only. In addition, a copy is directed to Wayne Froehlich, Environmental Specialist, Bureau of Non-point Pollution Control, NJDEP in order to satisfy the residuals management requirements of NJPDES Permit No. 0070343, Part IV, Discharge to Groundwater, F. Custom Requirement and to secure the Department's approval.

In the interim, please call or email John Kinkela of Lenox China at 609-965-8272 or John Kinkela@Lenox.com if you have any questions.

Very truly yours,

GANNETT FLEMING, INC.

JAMES M. BARISH, CPG

Project/Manager/Senior Hydrogeologist

cc:

Andrew Park, USEPA A Wayne Froehlich, NJDEP Daryl Clark, NJDEP Louis Fantin, Lenox China John Kinkela, Lenox China Gary Berman



# **Atlantic County**

## Department of Human Services

James Witkoskie Acting Department Head

609/645-5930 FAX: 645-5904 TDD: 348-5551

Division of Public Health 609/645-5935 FAX: 645-5931

Community Health/Clinical Services 609/645-5933 FAX: 272-8490

Environmental Health 609/645-5971 FAX: 645-5923

Substance Abuse Services 609/645-5932 FAX: 645-5890

Animal Shelter 609/485-2345 FAX: 484-0767

Dennis Levinson

County Executive

July 19, 2002

Ms. Linda Paulmeno P.O. Box 69 Cologne, NJ 08213

Ref. #: Quarterly Well Samples 353 S. Mannheim Ave. - RESW-3

Dear Ms. Paulmeno:

At the request of Lenox China, review of the Volatile Organic Scan performed by Gannett Fleming, Inc. has revealed that your water samples for the first and second quarters of 2002 were within State Standards for the chemicals tested.

Due to the unpredictability of groundwater quality, it is always recommended that you test your water every four to six months for volatile organic chemicals and mercury.

Please call me at once at (609) 645-5972 if you have any questions.

Sincerely,

Keith Phillips, R.E.H.S.

Principal Sanitary Inspector

KP

c. John Kinkela, Lenox China Robyn Berner, Gannett-Fleming Frank Faranca, NJDEP Andrew Park, USEPA Patricia Diamond, Deputy Health Officer

Offices at:

201 So. Shore Road • Northfield, New Jersey 08225-2370 ☐ 240 Old Turnpike • Pleasantville, New Jersey 08232-2544

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# **Atlantic County**

Department of Human Services

James Witkoskie
Acting Department Head

609/645-5930 FAX: 645-5904 TDD: 348-5551

Division of Public Health 609/645-5935 FAX: 645-5931

Community Health/Clinical Services 609/645-5933 FAX: 272-8490

Environmental Health 609/645-5971 FAX: 645-5923

Substance Abuse Services 609/645-5932 FAX: 645-5890

Animal Shelter 609/485-2345 FAX: 484-0767

Dennis Levinson County Executive

July 19, 2002

Mr. Cecil Heyes 357 South Mannheim Avenue Egg Harbor, NJ 08215

Re: Quarterly well samples RESW-2

Dear Mr. Heyes:

At the request of Lenox China, monitoring of the Volatile Organic Scans performed by Gannett Fleming, Inc. is being performed by the Division.

The sample for Volatile Organics for the first quarter of 2002 indicated a detection of **benzene** at a concentration of 1.3 mg/l, which is slightly over the limit for drinking water as set by Federal and State guidelines. The samples for the fourth quarter of 2001 and the second quarter of 2002 showed concentrations below the limits. As expected, the levels will fluctuate over time.

However, in order to be sure that you will not be exposed to unsafe levels of benzene, it is recommended that you cease to use your well water for drinking and cooking purposes.

Although benzene is not a chemical that is included in the Lenox Inc. Remediation Action Work Plan, you may be eligible for compensation for remedial action to remove this contaminant through the New Jersey Department of Environmental Protection's Spill Compensation Fund. An application for the Spill Fund is enclosed.

In order to be eligible for compensation, you are required to have two water tests which are over the limit for benzene, in this case. In order to receive compensation without delay, I recommend that you arrange to have your water tested for Volatile Organics through a private laboratory as soon as possible. A list of local laboratories that can perform this test is enclosed. The County Division of Public Health can also perform this test at a cost of \$85.00.



201 So. Shore Road • Northfield, New Jersey 08225-2370

240 Old Turnpike • Pleasantville, New Jersey 08232-2544
Visit our web site at http://www.aclink.org
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Please feel free to call Keith Phillips of my staff at (609) 645-5972 if you have any questions.

Very truly-yours,

Tracye McArdle

Director/Health Officer

TMc:kp

c. John Kinkela, Lenox China
 Frank Faranca, NJDEP
 Andrew Park, USEPA
 Patricia Diamond, Deputy Health Officer



# Atlantic County

Department of Human Services

James Witkoskie Acting Department Head

609/645-5930 FAX: 645-5904 TDD: 348-5551

Division of Public Health 609/645-5935 FAX: 645-5931

Community Health/Clinical Services 609/645-5933 FAX: 272-8490

Environmental Health 609/645-5971 FAX: 645-5923

Substance Abuse Services 609/645-5932 FAX: 645-5890

Animal Shelter 609/485-2345 FAX: 484-0767

Dennis Levinson County Executive

July 16, 2002

Mr. And Mrs. Samuel Burns 360 South Mannheim Avenue Egg Harbor, NJ 08215

Ref. #: RESW-1 Sampled 5/16/02

Dear Mr. And Mrs. Burns:

At the request of Lenox China, review of the Volatile Organic Scan performed by Gannett Fleming, Inc. has revealed trichloroethylene in a water sample taken from your well in the concentration of 1.5 ug/l (also expressed as parts per billion). Since this is the second test result that exceeds the State Maximum Contaminant Level of 1.0 ug/l, the recommendation that you cease to use your well water for drinking and cooking purposes remains in effect.

Lenox has offered to provide remediation to remove this contaminant based on cost assessment, and a representative of Lenox will contact you soon regarding your interest in having remedial action take place.

Please call me at once at (609) 645-5972 if you have any questions.

Sincerely

Tracye McArdle

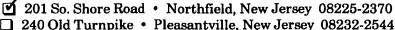
Director/Health Officer

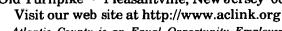
c. John Kinkela, Lenox China Robyn Berner, Gannett Fleming, Inc. Andrew Park, USEPA Frank Faranca, NJDEP Patricia Diamond, Deputy Health Officer

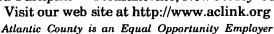
TMc:kp















**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

07/22/02 08:53 AM

cc: Subject: Lenox

As per your inquiry, I contacted Lenox. It appears that the installation would occur on July 26 or 27, 2002. The water company will set the meter and turn the service on during the following week.



John\_Kinkela@lenox. com

07/19/02 10:27 PM

To: Andy Park/R2/USEPA/US@EPA

CC

Subject: Re: Lenox China

Mr. Park,

After long negotiations with the homeowner, a substantial wait for the water company to extend the lines and some scheduling difficulties with the plumbing contractor, I have been assured that the installation is firmly scheduled for July 26 or 27, 2002. The water company will set the meter and turn the service on during the following week.

**Andy Park** 

To: John\_Kinkela@lenox.com

07/16/02 10:18 AM

cc: Barry Tornick/R2/USEPA/US@EPA, frank.faranca@dep.state.nj.us

Subject: Lenox China

John,

Lenox said during the May 2002 meeting that a public water line was expected to be hooked up to one residence in a month. The information is needed to maintain the positive Human Exposures Controlled EI determination for the site. Please provide EPA with the latest update/status on this. Thank you.

Andrew Park
RCRA Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Flr.
New York, New York 10007-1866
212-637-4184
park.andy@epa.gov

### **Communication Log**

Communication between: Barry Tornick and Andrew Park

Communication date: July 16, 2002

Prepared by: Andrew Park

Date of the preparation: July 22, 2002

#### Content:

During the mid-year evaluation, Barry asked me to find out the status of the installation of the public water line to one of the residence near the site, that Lenox agreed during the May meeting, to install.

- End -



Frank Faranca <Frank.Faranca@dep. state.nj.us>

07/15/02 08:13 AM

To: Wayne Froehlich < Wayne. Froehlich@dep.state.nj.us>

cc: Andy Park/R2/USEPA/US@EPA
Subject: Lenox China NJPDES Permit

\*\* High Priority \*\*

Hi Wayne, I work on the Lenox China site under a NJPDES-DGW permit, a MOA and a USEPA HSWA Permit. We (EPA and I) have evaluated the Tilton Road Pond in the past and issued a no-further action letter, with the expectation that in the future Lenox would continue routine maintenance of the pond. We also understand that under your Non-Point Pollution Control permit, Lenox will submit a plan for sampling and analysis of the sludge accumulated in the surface impoundment, as well as a plan for cleaning out the sludge from the surface impoundment. This is consistent with what we expected.

I have a suggestion that will simplify matters. If it is OK with you, can Lenox submit a single report (with copies to you and Andrew Park at EPA) calling it a "Maintenance Plan" that meets both of our requirements? The only possible difference is that we require that Lenox takes a few extra samples at each post-excavation location due to the variability of the fritted material in the sludge. Please respond ASAP if this is OK with you since Lenox would like to begin construction within one month (On or before August 15, 2002). Thank you.

Frank Faranca 4-4071

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028 phone: 609-984-4071

fax: 609-633-1439
e-mail: Frank.Faranca@dep.state.nj.us



Frank Faranca.v



James E. McGreevey Governor

Bradley M. Campbell Commissioner

June 24, 2002

JUN 2 4 2002

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

TCE Treated Water Disposition

Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received your June 5 and June 12, 2002 correspondences. The June 5, 2002 correspondence reflects the revision to the NJDEP SRP-1 and the Classification of Groundwater Treatment and Disposal Systems Forms; along with the notification to proceed with the connection of the TCE treated water discharge to Blue Heron Pines Golf Course. The June 12, 2002 correspondence contains a proposal for reestablishment of the CEA boundary and to conduct a remedial alternative analysis.

The Department and EPA originally approved the use of the treated water for on-site and off-site spray irrigation in the March 1, 1999 NJPDES-DGW permit. Therefore, the regulatory agencies approve of the request and the revised forms mentioned above.

With regard to the reestablishment of the CEA boundary and the proposal to conduct a remedial alternative analysis, the agencies also approve with the condition that Lenox submit a figure prior to initiating the fieldwork that shows the proposed location/area where the geoprobes are to be placed.

Should you have any questions, please contact me at (609) 984-4071 or email at frank.faranca@dep.state.nj.us

Sincerely,

Frank Faranca, Project Manager Bureau of Case Management

Andrew Park, USEPA, Region II C: Daryl Clark, NJDEP/DPFSR/BGWPA



To: Frank Faranca < Frank Faranca@dep.state.nj.us>

cc: Andy Park/R2/USEPA/US@EPA

Subject: Re: DRAFT Lenox Letter

#### Frank,

The draft letter is all right to me as long as the treated water meets the permit criteria before being sprayed on the golf course.

Andrew Park
RCRA Programs Branch
US Environmental Protection Agency Region 2
290 Broadway
New York, New York 10007-1866
212-637-4184
park.andy@epa.gov

**Barry Tornick** 

To: Andy Park/R2/USEPA/US@EPA

06/19/02 09:31 AM

cc:

Subject: Re: DRAFT Lenox Letter €

I guess that the letter is therefore, alright with me, as long as the spraying meets applicable criteria.

**Andy Park** 

**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

06/17/2002 04:45 PM

Subject: Re: DRAFT Lenox Letter

The March 25, 1997 HSWA Modification allows off-site spray irrigation. Spraying the golf course is off-site spray irrigation and, therefore, it is allowed under the HSWA permit.

Barry Tornick

**Barry Tornick** 

To: Andy Park/R2/USEPA/US@EPA

06/17/02 04:31 PM

Subject: Re: DRAFT Lenox Letter

I am not aware that EPA approved the proposal to spray the golf course, but the rest is alright.

Andy Park

**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

06/17/2002 02:48

PM

Subject: DRAFT Lenox Letter

Please see below a message from Frank Faranca, NJDEP. It is acceptable to me. Please let me know what you think.

····· Forwarded by Andy Park/R2/USEPA/US on 06/17/02 02:46 PM ·····



Frank Faranca <Frank.Faranca@dep. state.nj.us>

To: Andy Park/R2/USEPA/US@EPA

CC:

cc:

Subject: DRAFT Lenox Letter

06/17/02 02:34 PM

\*\* High Priority \*\*

Andy,

Please examine the attached letter and advise accordingly. Thanks Frank

Frank Faranca, Project Manager

NJDEP/ Bureau of Case Management

**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

06/17/02 04:45 PM

cc:

Subject: Re: DRAFT Lenox Letter

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**Barry Tornick** 

**Barry Tornick** 

To: Andy Park/R2/USEPA/US@EPA

06/17/02 04:31 PM

Subject: Re: DRAFT Lenox Letter 3

I am not aware that EPA approved the proposal to spray the golf course, but the rest is alright.

Andy Park

Andy Park

To: Barry Tornick/R2/USEPA/US@EPA

06/17/2002 02:48

CC.

PM

Subject: DRAFT Lenox Letter

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Frank Faranca <Frank.Faranca@dep. state.nj.us> To: Andy Park/R2/USEPA/US@EPA

cc:

Subject: DRAFT Lenox Letter

06/17/02 02:34 PM

\*\* High Priority \*\*

Andv.

Please examine the attached letter and advise accordingly. Thanks

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028

Trenton, NJ 08625-0025 phone: 609-984-4071 fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us





TCE Treated Water Dispositio Frank Faranca.v

**Barry Tornick** 

To: Andy Park/R2/USEPA/US@EPA

06/17/02 04:31 PM

CC:

Subject: Re: DRAFT Lenox Letter

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Andy Park

**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

06/17/2002 02:48

CC

PM

Subject: DRAFT Lenox Letter

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····· Forwarded by Andy Park/R2/USEPA/US on 06/17/02 02:46 PM ·····



Frank Faranca <Frank.Faranca@dep. state.nj.us> To: Andy Park/R2/USEPA/US@EPA

CC

Subject: DRAFT Lenox Letter

06/17/02 02:34 PM

\*\* High Priority \*\*

7 ndr

Andy, Please examine the attached letter and advise accordingly. Thanks Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028

phone: 609-984-4071 fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us

TCE Treated Water Dispositio Frank Faranca.v

**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

06/17/02 02:48 PM

cc: Subject: DRAFT Lenox Letter

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····· Forwarded by Andy Park/R2/USEPA/US on 06/17/02 02:46 PM ·····



Frank Faranca <Frank.Faranca@dep. state.nj.us> To: Andy Park/R2/USEPA/US@EPA

cc:

Subject: DRAFT Lenox Letter

06/17/02 02:34 PM

\*\* High Priority \*\*

Andy, Please examine the attached letter and advise accordingly. Thanks Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028
Trenton, NJ 08625-0028
phone: 609-984-4071

phone: 609-984-4071 fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us

TCE Treated Water Dispositio Frank Faranca.v



#### Frank Faranca <Frank.Faranca@dep. state.nj.us>

To: Andy Park/R2/USEPA/US@EPA

cc:

Subject: DRAFT Lenox Letter

06/17/02 02:34 PM

\*\* High Priority \*\*

Andy, Please examine the attached letter and advise accordingly. Thanks Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028 phone: 609-984-4071

phone: 609-984-40/ fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us





TCE Treated Water Dispositio Frank Faranca.v

June 18, 2002

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

TCE Treated Water Disposition

Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received your June 5 and June 12, 2002 correspondences. The June 5th correspondence reflects the revision to the NJDEP SRP-1 and the Classification of Groundwater Treatment and Disposal Systems Forms; along with the notification to proceed with the connection of the TCE treated water discharge to Blue Heron Pines Golf Course. The June 12th correspondence contains a proposal for reestablishment of the CEA boundary and to conduct a remedial alternative analysis.

The Department and EPA originally approved the use of the treated water for on-site and off-site spray irrigation in the March 1, 1999 NJPDES-DGW permit. Therefore, the regulatory agencies approve of the request and the revised forms mentioned above.

With regard to the reestablishment of the CEA boundary and the proposal to conduct a remedial alternative analysis, the agencies also approve with the condition that Lenox submit a figure prior to initiating the fieldwork that shows the proposed location/area where the geoprobes are to be placed.

Should you have any questions, please contact me at (609) 984-4071 or email at frank.faranca@dep.state.ni.us

Sincerely,

Frank Faranca, Project Manager Bureau of Case Management

C: Andrew Park, USEPA, Region II Daryl Clark, NJDEP/DPFSR/BGWPA



# VIA FEDERAL EXPRESS

June 12, 2002 File #35221.001

Frank Faranca
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Andrew Park
United States Environmental Protection Agency
Region II
290 Broadway, 22<sup>nd</sup> Floor
New York, New York 10007-1866

Re: Follow Up to May 16 Meeting

Lenox China, Pomona, New Jersey

Dear Mr. Faranca and Mr. Park:

We appreciated the opportunity to meet with you and Messrs Clark and Tornick on May 16 to discuss the ongoing groundwater monitoring and remediation project in Pomona. This letter summarizes the action items discussed during our meeting and the proposed scope of work to be performed by Lenox. Lenox is prepared to begin this work pending written approval from NJDEP and USEPA.

#### Reestablish CEA Boundary

Sampling data from wells MW-77, -78 and -79A indicate that TCE is present at concentrations exceeding the 1  $\mu$ g/l NJDEP groundwater standard. In addition, data from the sentinel wells and the residential well at 360 South Mannheim Avenue (Burns property) suggests an easterly component to the plume migration. Lenox proposes to reestablish the CEA boundary, to the extent necessary, by installing new, permanent sentinel wells that will be placed east of well MW-79A and east and northeast of the Burns' property.

A Geoprobe® groundwater sampling program will be performed to establish the locations for new sentinel wells. Groundwater will be sampled from temporary monitoring points spaced approximately 100 feet apart along White Horse Pike and South Mannheim Avenue and will screen the same interval as the existing sentinel wells (approximately 50 to 60 feet below grade). Sampling along White Horse Pike will begin 100 feet east of well MW-79A; sampling along South Mannheim will begin 100 feet northeast of the Burns' property. Groundwater samples

GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540 Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

#### **Gannett Fleming**

Mr. Frank Faranca, NJDEP Mr. Andrew Park, USEPA June 12, 2002

- 2 -

will be analyzed in the field using a portable gas chromatograph (PGC) to guide the investigation. Duplicate samples will be collected from each location, with approximately 30 percent of the samples sent to a fixed laboratory for confirmation analysis. Definition of the plume boundary will be considered complete when TCE is not found at a concentration exceeding the 1  $\mu$ g/l standard in samples from two consecutive Geoprobe® sampling points. Any sample that is used to define the plume boundary will be submitted to the fixed laboratory for confirmation analysis.

Boreholes created by the Geoprobe® will be sealed to grade with bentonite grout after the sampling is completed. The Geoprobe® sampling equipment will be decontaminated before use and after completing each sampling point to minimize the possibility of cross-contamination. Work along South Mannheim Avenue and White Horse Pike will be performed under a roadway access permit from the appropriate local and state agencies. It will be necessary for Lenox to secure access agreements with private landowners northeast of the Burns' property before any work can be performed on these parcels. Lenox cannot reasonably predict how long it may take to obtain these access agreements and, as a result, it may be necessary to perform the public and private access space fieldwork under separate mobilizations.

Lenox will provide to NJDEP and USEPA for review and approval the results from the Geoprobe® sampling and the proposed locations for the new sentinel wells. The wells will be constructed in the same manner as the existing sentinel wells and will be installed using a truckmounted drill rig. All drill cuttings and development water will be drummed and characterized for disposal purposes.

After the sentinel wells are installed and incorporated in the quarterly sampling program, Lenox suggests that the results from at least two consecutive monitoring rounds be used to verify the new CEA boundaries established by these wells. A revised CEA boundary map will subsequently be prepared and submitted to NJDEP in hard copy and electronic format as requested by the Department.

## Remedial Alternatives Analysis

Concurrent with the Geoprobe® and well installation work, Lenox will evaluate potential remedial strategies to address the TCE plume in the area of White Horse Pike. As we discussed at the meeting, the low concentration and diffuse nature of the plume creates certain difficulties in selecting a remedy that can be effectively monitored to track and assess the remedial progress. In addition to Hydrogen Release Compound (HRC), which was described in a document provided to us at the meeting by NJDEP, Lenox will also screen and evaluate hydraulic barrier/mass transfer (i.e. pump and treat or air sparge), chemical oxidation (i.e. hydrogen peroxide or potassium permanganate) and chemical reduction (i.e. zero valance iron) as possible remedial alternatives. Lenox will begin to initially screen these remedial technologies based on the currently known site data. It will be necessary to define the plume extent and other site-specific chemical and physical aquifer characteristics in order to evaluate the appropriateness and

#### **Cannett Fleming**

Mr. Frank Faranca, NJDEP Mr. Andrew Park, USEPA June 12, 2002

- 3 -

cost-effectiveness of available remedial solutions. These supplemental site data will be developed, as necessary, during the Geoprobe® sampling program.

We would be pleased to discuss the action items detailed in this letter at your earliest convenience. Please call or email John Kinkela at Lenox (609-965-8272; John\_Kinkela@Lenox.com) if you have any questions.

Very truly yours,

GANNETT FLEMING, INC.

JAMES M. BARISH, CPG

Project Manager/Senior Hydrogeologist

Rober Berney for

cc:

Barry Tornick Daryl Clark Lou Fantin John Kinkela Gary Berman



#### June 5, 2002

#### CERTIFIED MAIL - RETURN RECEIPT REQUESTED #7001 2510 0007 5707 0176

Mr. Frank F. Faranca
Case Manager, Bureau of Publicly Funded
Site Remediation
New Jersey Department of Environmental
Protection
401 E. State Street 5th Floor West
P.O. Box 028
Trenton NJ 08625-0028

Mr. Andrew Park
United States Environmental Protection
Agency
26 Federal Plaza
PO Box 415
New York, NY 10278

Re:

TCE Treated Water Discharge Lenox China, Pomona, New Jersey DGW Permit NJ0086487 HSWA Permit #NJD002325074

Dear Mr. Faranca

Lenox China would like to express our thanks to the New Jersey Department of Environmental Protection (NJDEP) and the US Environmental Protection Agency (USEPA) for meeting with us on Thursday, May 16, 2002 in Trenton, NJ. As we agreed, Jim Barish, Gannett-Fleming is preparing a letter summarizing the issues we discussed and their resolution. This letter only addresses one item, supplying treated TCE water to the adjacent golf course for irrigation. In accordance with our discussion of this item, I have informed Ole' Hansen & Sons that NJDEP and USEPA have no objection to supplying the treated effluent from the TCE water treatment system for golf course irrigation as provided in our NJPDES DGW permit, NJ0086487.

Lenox China is hereby appending the attached copy of page 17, block 9, Property Owner's Certification, signed by David M. Goddard, Executive Vice-President, Ole' Hansen & Sons to its original NJDEP SRP-1 Form (Copy Attached). In addition Lenox has amended the NJDEP Classification of Groundwater Treatment and Disposal Systems Form to add two (2) points for Spray Irrigation, Disposal Only as previously requested by the department. The Grand Total is now 46 points and the Facility Class remains at Class N2.

Lenox China and Ole' Hansen are hereby requesting that NJDEP and USEPA accept this letter as notice that Lenox China is proceeding with connection of the TCE treated water discharge to

Re: TCE Treated Water Discharge, page 2

the irrigation ponds at Hansen's, Blue Heron Pines golf course by signing and returning a copy of this letter and thereby acknowledging that they have no objection to this action.

Please do not hesitate to call me if you have any questions or require additional information at

	2 or FAX to (609) 965-8	3282.
JFK/jfk		Sincerely yours,  John F. Kinkela  Director of Environmental Engineering
Enclosures:	- Signed copy of NJDE -Amended NJDEP Class Form	P SRP-1 Form, Part I, Facility Information, block 9,page 17 ssification of Groundwater Treatment and Disposal Systems
Cc w/o encls:	M.E. Chinn L.A. Fantin	
	Dave Goddard, Ole' Ha	ansen & Sons
	G.W. Berman J. Barish, Gannet-Flem	ing
ACCEPTANO	New Jersey Departmen Bureau of Federal Case	t of Environmental Protection Management Inded Site Remediation
	Ву:	Signed:
	Title	Date:
	United States Environment	mental Protection Agency, Region II
	By:	Signed:
	Title	Date:

Mr. Eric Johnson Environmental Strategies Corporation 11911 Freedom Drive Suite 900 Reston, Virginia 20190

Re: Freedom of Information Request No. (2)RIN-00889-02 Dated: February 15, 2002

Dear Mr. Johnson:

Your request for information has been referred to this branch for response. We have searched the Resource Conservation and Recovery Act (RCRA) files and/or computer database as appropriate to respond to your request.

Enclosed is information responsive to your request for Lenox China on Tilton Road in Pomona, New Jersey. If you need any additional information concerning Lenox China, please contact Mr. David Abrines of my staff at (212) 637-3043.

In addition, RCRA information is available on the Internet as described on the enclosed sheet.

Please include the above referenced request number in any subsequent communication relating to this request.

Sincerely yours,

Raymond Basso, Chief RCRA Programs Branch

Enclosures

bcc: D. Abrines, 2DEPP-RPB A. Park, 2DEPP-RPB 2CD-POB File Copy

# **Barry Tornick**

05/17/02 08:35 AM

To: Ray Basso/R2/USEPA/US@EPA, BetsyLopez@Mindspring.com@EPA, Nicoletta DiForte/R2/USEPA/US@EPA

cc: Andy Park/R2/USEPA/US@EPA, John Brogard/R2/USEPA/US@EPA, Clifford Ng/R2/USEPA/US@EPA, Alan Straus/R2/USEPA/US@EPA, Elizabeth Butler/R2/USEPA/US@EPA

Subject: Change of the Positive CA750 Determination for Lenox China

EPA and NJDEP met with Lenox yesterday about GW data obtained over the past couple of years. While the pump and treat system had been controlling contamination, it no longer is and we must now change the determination to "not under control". There is also currently a Human Exposure risk to one residential well, however, the resident will be connected to a public water supply within the next month, so we will not change the CA725 for now. I explained to Lenox and their consultant, in detail, the criteria for meeting CA750. Lenox understood and agreed that under the circumstances the change to "not under control" was appropriate.

We discussed additional measures that Lenox will now take. They include additional monitoring wells and chemical treatment of the GW. Part of the problem is that the aquifer is extremely permeable and pumping is not effective very far from the pumping wells. However, additional recovery wells will also be considered.

Our CA750 commitment for FY'02 is 7. We will try to make an additional CA750 determination to make up for the loss of Lenox.

# Meeting with Lenox China and NJDEP on May 16, 2002

#### Attendees:

Lenox China: John Kinkela, Gary Berman Gannett Fleming: James M. Barish, CPG NJDEP: Frank Faranca, Daryl Clark EPA: Barry Tornick, Andrew Park

# Increases in TCE concentration at the Sentinel Wells:

- Barish gave out a handout of drawings.

- He said that, based on the historical groundwater data before and after the pumping, the groundwater pumping has been effective in containing the TCE plume up to near a line along pumping wells.
- Residual TCE contamination has been difficult to be removed and lowered further.
- He believed that the increase in the TCE concentration at the few sentinel wells may be due to TCE plume that had migrated off of the facility (residual TCE?) and may be within the fluctuation expected from the residual TCE.

# Groundwater data collected from the residential wells:

- Kinkela gave out a handout of maps showing the residences along South Mannheim Avenue.
- Catania, DeCamp, Voudren, Gras, Williamson connected to the municipal water supply.
- The latest groundwater data collected from Burns, Heyes, and Paulmeno shows that TCE was detected at Burns at 1.4 ppb. On the urging from Lenox, Burns had agreed to have a municipal water line be hooked up to his residence. The line is expected to be installed within a month from the meeting date (May 16, 2002).
- Benzene detected at the Paulmeno residence, not a chemical constituent released from the facility. Not Lenox responsibility. The local health department may need to be notified.
- Chloroform detected may be due to laboratory contamination.

#### Follow-up Action:

- Lenox proposed that additional wells (outpost or sentinel?) further out be installed along South Mannheim Avenue and to the east in the area of farmland.
- New CEA may be needed.
- Other options were discussed: additional pumping wells near Whitehorse Pike, increasing the pumping rate, and injection of oxidizing agents to break down TCE.
- Within 30 days, Barish will memoralize what we have discussed and agreed.

Use of Treated Groundwater at the Golf Course West and SouthWest of the Facility: The owner of the golf course and also of the land east and northeast of the Lenox property made a proposal to Lenox to use the treated groundwater at the golf course.

Renewal Application: Lenox waiting for a response from EPA to their letter concerning the renewal of the HSWA permit.

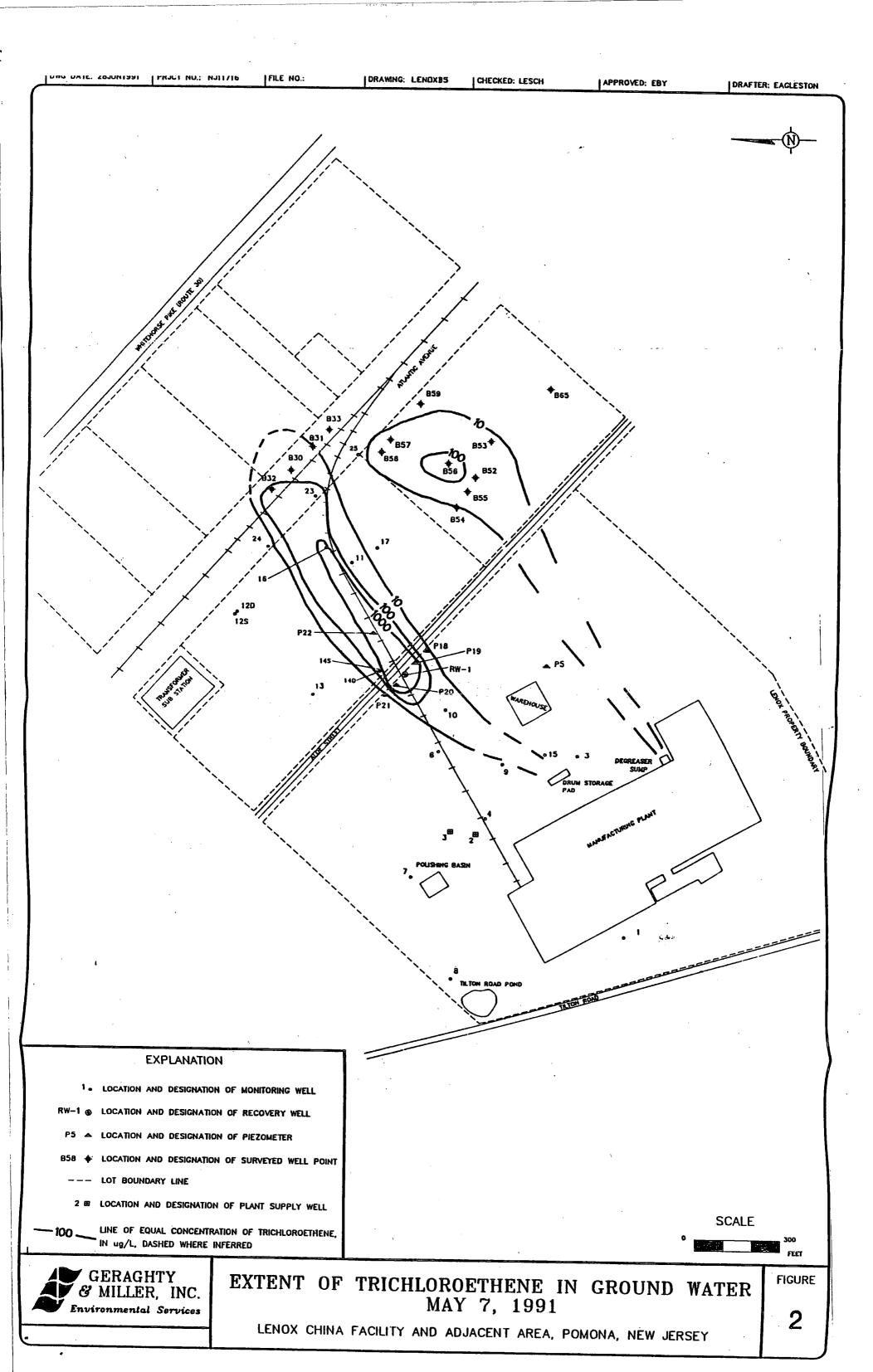
Tilton Road Pond: Lenox working with NJDEP to remove the bottom sludge.

<u>New Manufacturing</u>: A Sterling Silver manufacutirng facility will be constructed at the site. All silver wastes, except laboratory silver residue, will be recycled.

Change of Environmental Indicator:

- Barry said that the facility is currently designated positive for both of the Environmental Indicators but, based on the latest groundwater data, it is no longer controlling migration of the contaminated groundwater. Therefore, it will be changed to No from Yes. Lenox agreed.

Prepared by Andrew Park



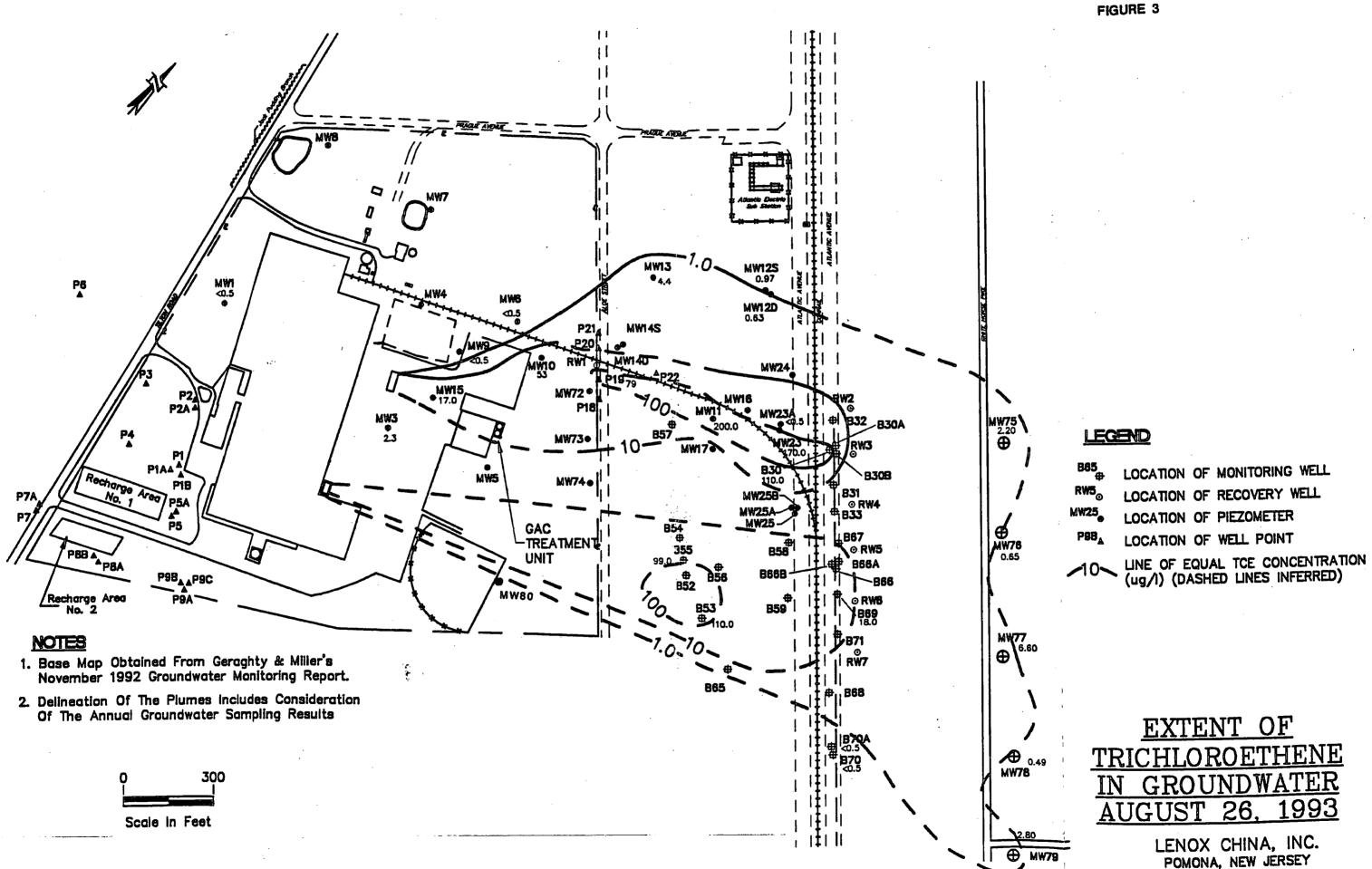
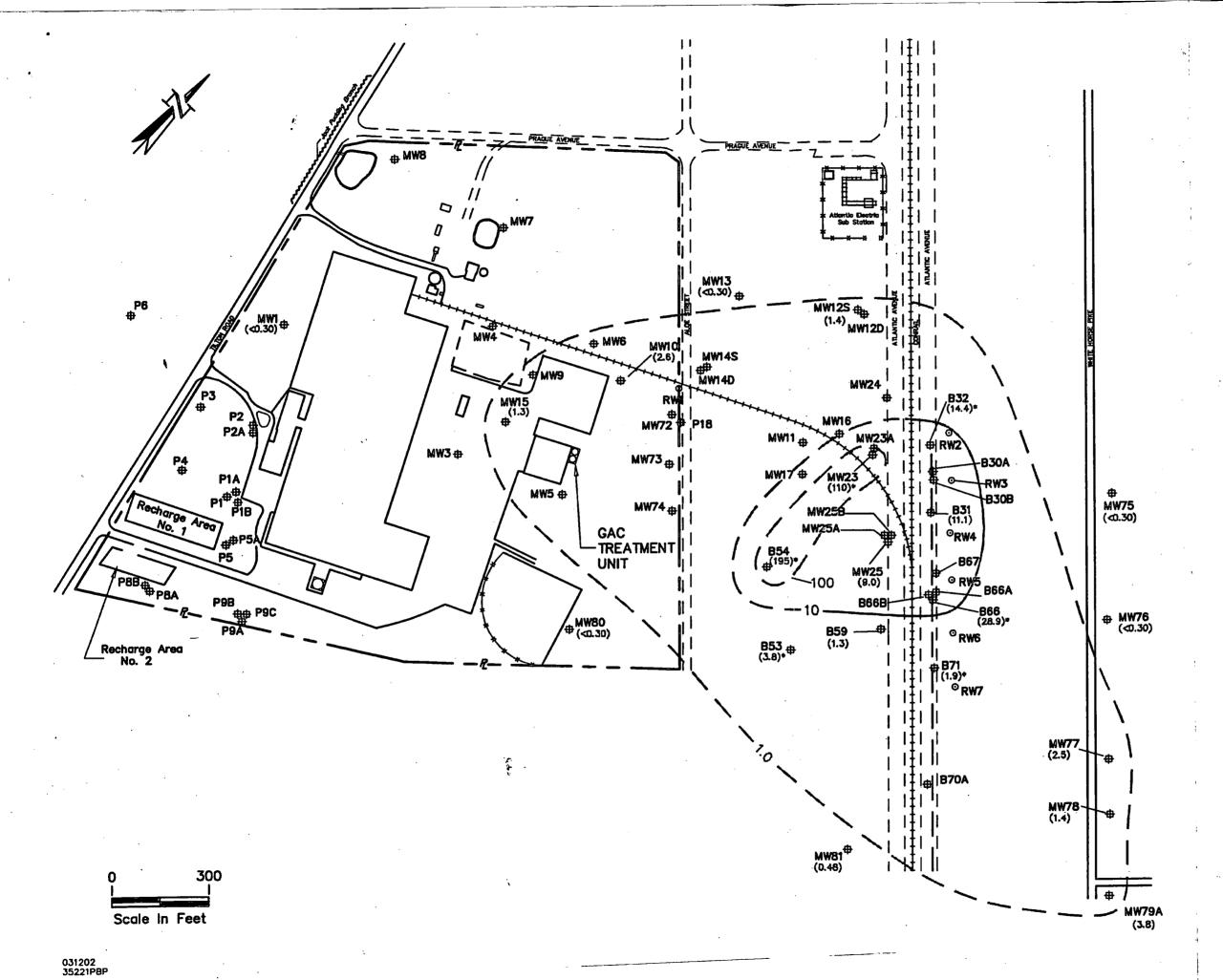


FIGURE 4



# **LEGEND**

RW5 O Location Of Recovery Well

Line Of Equal TCE

1.0 —— Concentration in ug/l
(Dashed Where Inferred)

853 Results with Asterisk Indicate
(3.8) April 2001 Results

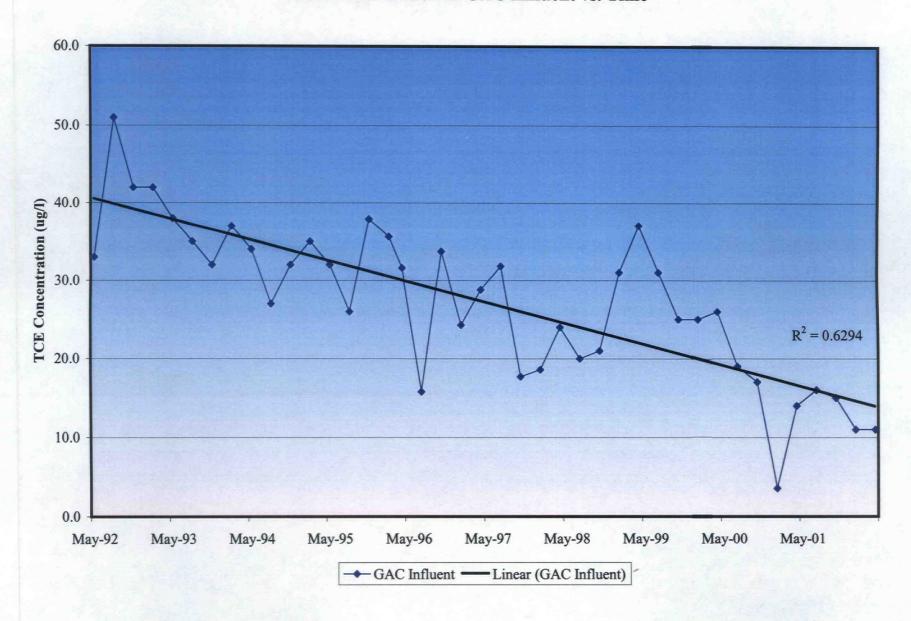
# NOTE:

Base Map Obtained From Geraghty & Miller's August 1992 Groundwater Monitoring Report.

# EXTENT OF TRICHLOROETHYLENE IN GROUNDWATER ANUARY 21-23, 2002

LENOX CHINA POMONA, NEW JERSEY

TCE Concentration in GAC Influent vs. Time

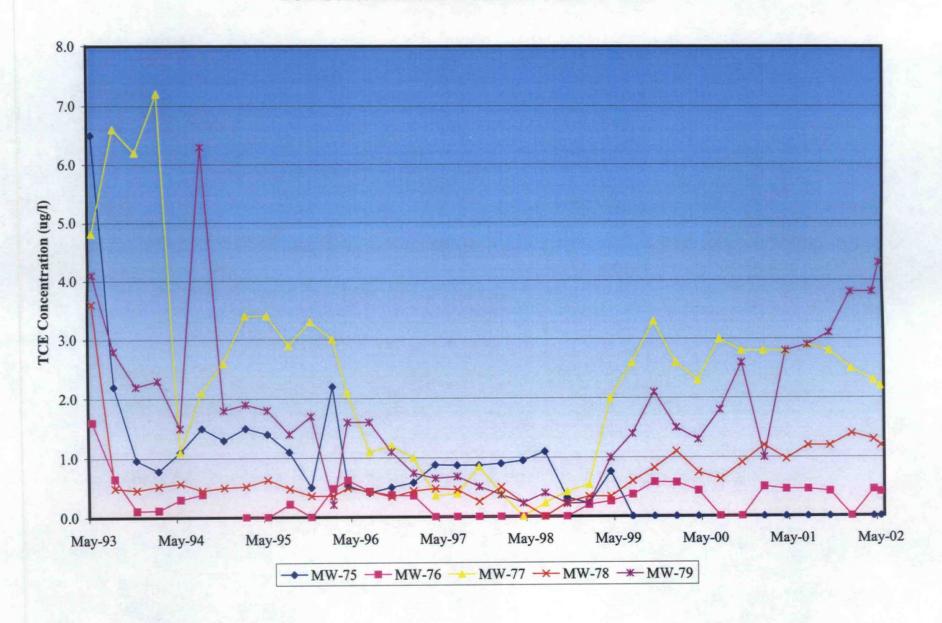


# TCE SENTINEL WELLS DATA

WELL	1-May-02	8-Apr-02	22-Jan-02	17-Oct-01	24-Jul-01	17-Apr-01	23-Jan-01
MW-75	ND	ND	ND	ND	ND	ND	ND
MW-76	0.41	0.45	ND	0.42	0.46	0.46	0.50
MW-77	2.20	2.30	2.50	2.80	2.90	2.80	2.80
MW-78	1.20	1.30	1.40	1.20	1.20	0.97	1.20
MW-79A	4.30	3.80	3.80	3.10	2.90	2.80	1.00
MW-81		0.47	0.48	0.38	0.61	1.20	1.10
MW-70A		ND					

WELL	17-Oct-00	11-Jul-00	11-Apr-00	19-Jan-00	19-Oct-99	13-Jul-99	14-Apr-99	13-Jan-99
MW-75	ND	ND	ND	ND	ND	ND	0.76	0.22
MW-76	ND	ND	0.43	0.57	0.58	0.37	0.26	0.20
MW-77	2.80	3.00	2.30	2.60	3.30	2.60	2.00	0.54
MW-78	0.91	0.63	0.74	1.10	0.82	0.60	0.34	0.34
MW-79A	2.60	1.80	1.30	1.50	2.10	1.40	1.00	0.23
MW-81 MW-70A	ND	0.52	1.20	1.70	2.40	2.20	2.10	0.31

TCE Concentrations in Sentinel Wells vs. Time



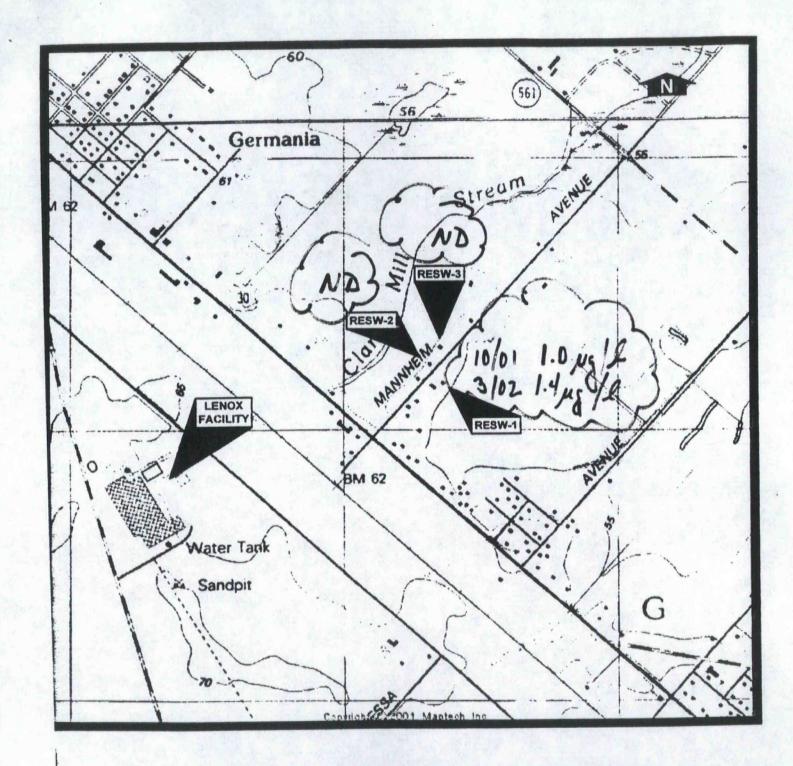


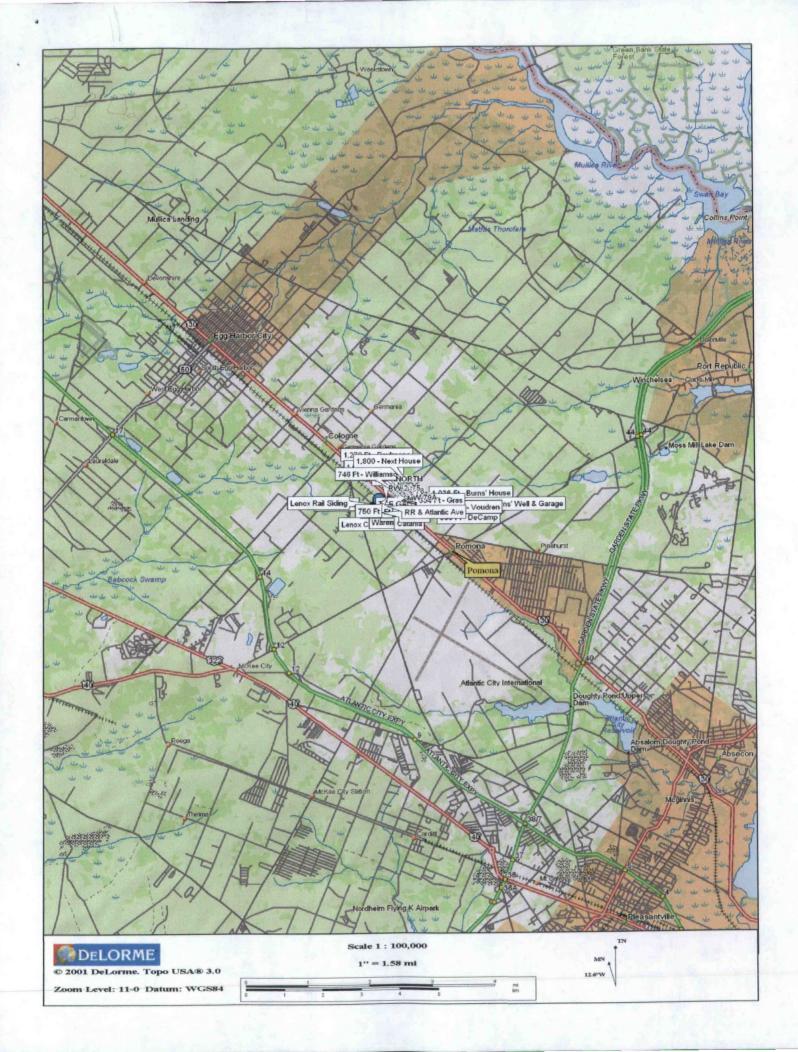
FIGURE 5 - RESIDENTIAL WELL SAMPLING LOCATIONS

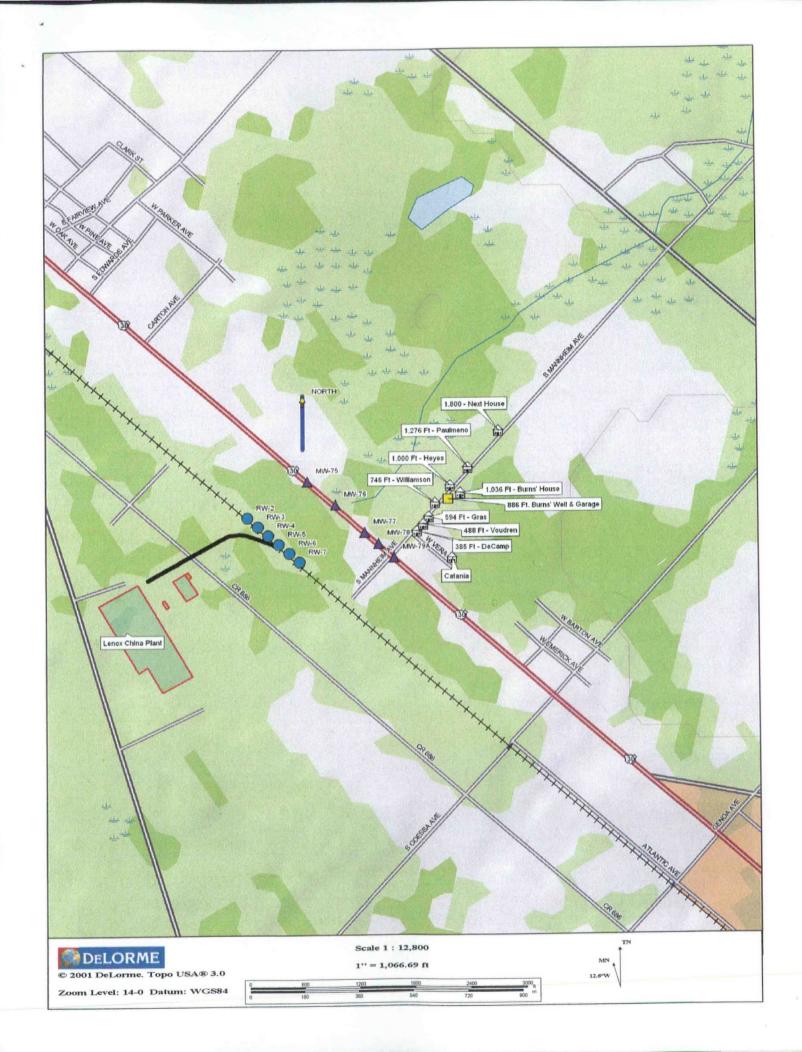
LENOX CHINA

POMONA, NEW JERSEY

Approximate Scale: 1 inch = 1,200 feet

Source Map: USGS 7.5 Minute Series, Topographic Map - Pleasantville, NJ 1989



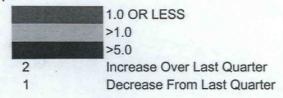




# TCE SENTINEL WELLS DATA

WELL	1-May-02	8-Apr-02	22-Jan-02
MW-75	ND	ND	ND
MW-76	0.41	0.45	ND
MW-77	2.20	2.30	2.50
MW-78	1.20	1.30	1.40
MW-79A	4.30	3.80	3.80
MW-81		0.47	0.48
MW-70A	to Constitution of the	- ND	

## LEGEND:



**Andy Park** 

04/02/02 03:42 PM

To: ffaranca@dep.state.nj.us

cc: Barry Tornick/R2/USEPA/US@EPA, Ray

Basso/R2/USEPA/US@EPA

Subject: Re: Lenox GW Issues

Frank.

I have reviewed the private well groundwater data provided by Gannett Fleming dated March 26, 2002. I agree with the findings noted by Barry as below on the private residential wells at 360 and 357 South Mannheim Avenue, Egg Harbor, NJ having the slight exceedances of TCE and benzene, respectively. I have also noted that chloroform was detected in a range of 0.72 to 5.0 ppb from all the three residential wells. It has almost been three years since TCE was detected above its standard at the sentinel wells. Although the TCE level at MW-81 has been reduced during the time, the levels at MW-77, MW-78, and MW-79A have not changed much and appear not to be lowered below the standard in the future if the current groundwater remediation is maintained. I agree with Barry that it is a time to talk to Lenox about additional pumping in the area of MW-79A. Please let me know what you think. Thanks. Andy

Barry Tornick

**Barry Tornick** 

04/02/02 08:12 AM

To: Andy Park/R2/USEPA/US@EPA

cc: FFaranca@DEP.state.nj.us, Ray Basso/R2/USEPA/US@EPA

Subject: Lenox GW Issues

TCE concentrations continue to slightly exceed NJDEP standards at the sentinel wells and now we have off-site, residential well data indicating very slight exceedances for benzene and TCE. It looks like the recovery wells are effective where they are adjacent to the sentinel wells. MW-75 and MW-76 appear well controlled by RW-2 through RW-7. Further down the railroad track however, where there are no recovery wells is where there are exceedances in MW-77, MW-78 and especially MW-79A and the residential wells on S. Mannheim Avenue. I don't really agree with the interpretation in the cover letter from Lenox, that there is improvement because levels are stabilizing, except for MW-79A. It is very significant that MW-79A is not getting any better because it is the well closest to the residential wells on S. Mannheim Avenue.

We have been waiting a long time and not much has changed. Maybe we need to discuss with Lenox adding some wells to better control the plume closer to the residences

Let's discuss.

7.02/03



State of New Jersey

Department of Environmental Protection

Bradley M. Campbell
Commissioner

MEMORANDUM

APR 3 6 2002

TO:

ames E. McGreevey

Governor

Frank Faranca, Case Manager

Bureau of Case Management

APR 30 2002

FROM:

Daryl Clark, Geologist DC

Bureau of Ground Water Pollution Abatement

SUBJECT:

NJPDES-DGW Permit and TCE Quarterly Ground Water Monitoring Report

(January-March 2002 Quarter) (March 2002), Lenox China Facility, Pomona,

Atlantic County.

JOB/PAC:

A110A7B0/V54B

January-March 2002 Quarterly Ground Water Report

The BGWPA has reviewed the subject document, which contains the results of permit required detection ground water monitoring for the January-March 2002 quarter, TCE, lead and zinc monitoring under the MOA, the results of residential well sampling, evaluations of the GAC treatment system and pump-and-treat capture zone. Inspection logs for the SWMUs, RCRA wells and recovery wells and field logs outlining the sample collection and preservation procedures performed by the sampling personnel are also included in the report. The information presented is acceptable.

The Department required Lenox to conduct a statistical analysis using the Mann-Whitney U-Test on the ground water results from the site sentinel wells to show compliance with the GWQC for TCE and its breakdown products.

The January 2002 sampling results for the sentinel wells along Whitehorse Pike show exceedences of the GWQC for TCE in monitoring well MW-77 (2.5 ppb), MW-78 (1.4 ppb) and MW-79A (3.8 ppb).

The results show a decrease from the previous quarter for MW-77 (2.8 ppb) but an increase for MW-79A (3.1 ppb) and MW-78 (1.2 ppb). The results of the Mann Whitney U-Test performed by Lenox on the last 8 quarters of data show that the null hypothesis is accepted for the wells MW-77, MW-78 and MW-79A. Therefore, Lenox cannot conclude that TCE concentrations are decreasing. The BGWPA finds the data presented to be acceptable.

The quarterly report states that the average daily volume (ADV) of flow from the recovery wells for the months of December, January and February were 290,007 gpd, 262,752 gpd and 358,950 gpd, respectively. Except for January, the ADV exceeded the minimum pumping volume of 268,000 gallons per day that is needed to adequately capture the plume. The ADV for March 2002 was not available for this report.

WHI BA SORS 15: NO LE HUS 208 CIKE OLL BOA 800 1400 10 215158014401 L'600/6

During an April 5, 2000 meeting between NJDEP, EPA and Lenox, all parties agreed that the status of TCE contaminants in the sentinel wells would be assessed on a quarter-by-quarter basis. It was expected that an increase in flow volume from a planned rehabilitation of the treatment system would eventually result in a decrease of TCE concentrations to below the GWQC in the impacted sentinel wells. Lenox was also informed that additional investigations/remedial actions could be warranted if TCE concentrations in the impacted sentinel wells remained at ourrent levels or showed significant increases.

The results from the 7 quarterly sampling events conducted since the rehabilitation of the pumpand-treat system in May 2000 has shown that while significant increases in TCE concentrations have not occurred, ground water samples from sentinel wells MW-77 and MW-79A have consistently remained above the GWQC for TCE.

Residential Well Sampling Results

Lenox China, in coordination with Atlantic County officials, conducted potable well sampling at 3 residences located downgradient of the sentinel wells on March 19, 2002. As was discussed and agreed upon by the Department and Lenox representatives in telephone and email correspondence, potable wells downgradient of the site were sampled due to the consistent presence of low levels of TCE concentrations in the sentinel wells along Whitehorse Pikc. As was also agreed upon, sampling of the wells will be conducted quarterly.

Ground water samples from the potable wells of 3 private residences located downgradient of the Whitehorse Pike sentinel wells were taken and analyzed for VOCs. The results revealed that one residential well, identified as RESW-1 exceeded the GWQC for TCE with a concentration of 1.4 ppb. Lenox is currently negotiating with the owner of the well to have the residence connected to city water. The BGWPA received an email dated November 27, 2001 from BCM that the well will remain open and will be sampled quarterly by Lenox.

The BGWPA received an email dated November 27, 2001 from BCM that stated that Lenox would address the 1 ppb TCE concentration in the residential well by hooking up the homeowner to public water. The well will remain open and will be sampled by Lenox.

The BGWPA has previously requested information on the 3 potable wells such as records on well construction, depth, screened intervals etc. This information is required in order for the BGWPA to determine whether or not additional monitoring points are needed and if the boundaries of the CEA need to be expanded.

Based on the fact that TCE concentrations have consistently remained above the GWQS for the last 7 quarters, albeit at low concentrations, remedial actions to address this residual contamination may be pursued by the Department. However, the BGWPA defers any recommendations concerning possible remedial actions pending the upcoming meeting between the Department, USEPA and Lenox scheduled for May 16, 2002.

If you have any questions regarding the contents of this memo, please contact me at 292-1955.

: Marc Romanell, BGWPA

#7211

# LENOX CHINA FACILITY AND ADJACENT AREA POMONA, NEW JERSEY

## TABLE 1 SECTION 5

STIMMARY OF TRICHT OROETHENE	(TCE) CONCENTRATIONS IN GROUNDWATER
SUMMARI OF IRICHLURUE HENE	(ICE) CONCERNITURE IN GROOM THE TEXT

Well	Jamuary 22-24, 2001	April 16-18, 2001	CHLOROETHENE July 23-25, 2001	October 16-17, 2001	January 21-23, 2002
an .	< 0.30	< 0.30	<0.30	<0.30	<0.30
vrw1 vrw3	₹ 0.30	< 0.50	VC.30		40.50
ντως ντως	•	•	•	_	_
	•	•	-	<u>.</u>	_
AW9	11.5	10.7	11.6/12.0	9.6/8.8	2.6/2.7
∕IW10 ∕IW11 ·	-	10.7	11.0/12.0	,,,,,,,	
/W12S	1.7	1.5	1.80	1.4	1.4
/W12D	1.7	5.3	1.80		
	024	0.63	<0.30	<0.30	<0.30
/W13 /W14S	0.34	0.03		<b>40.50</b>	40.20
		•	. •		_
rw14D		1.9	 1.2	0.83	1.3
(W15	1.8	1.9	1.2	0.05	
CW16	•	•	-	•	•
fW17	•	-	-	-	•
(W23	•	110.0	•	•	•
TW23 A	•	•	•	· •	•
fW24					
rw25	28.8	22.9	17.6	14.0	9.0
IW25Å	-	•	•	•	
W25B	-	-	· <u>-</u>	-	-
30 (MW26)	-	•	-		•
30A (MW26A)	•	•	*	· -	-
30B (MW26B)			•	•	•
31 (MW27)	9.1	15.4	15.7	13.0	• 11.1
32 (MW28)		14.4	•		•
13 (MW29)	•	•	•	. •	-
52	-	-		•	•
i3	-	. 3.8	. •		•
54	• -	195	=	-	
55	•	•	•-	•	•
16	-	•		•	-
5 <b>7</b>				-	-
8 -	*. · ·	•	•	-	•
59	5.2	4.6	2.2	1.3	1.3
55	-	•	-	-	-
i6	-	28.9	-	•	-
66A	- '	•	•	•	-
i6B · ·	-	•	-	-	-
i <b>7</b>		-	•	-	-
8	-	-	-	•	
9	<del>-</del>		-	•	-
0	•	•	•	•	
0Å		-	-		•
11	-	1.9	-		-
W72	-		-	•	-
W73		-	-		•
W74	: : :	-	-	•	•
W75	< 0.30	< 0.30	<0.30	<0.30	<0.30/<0.30
₩76	0.50	0.46	0.46	0.42	<0.30
w17	2.8	2.8	2.9	2.8	2.5
<b>₩</b> 78	1.20	0.97	1.2	1.2	1.4
V79A	1.0	2.8	2.9	3.1	3.8
V80	< 0.30	< 0.30	<0.30	<0.30	<0.30
V81	1.1	1.2	0.61	0.38	0.48
3 .	•		-	-	-
9	-		-		-
0		-	-	· · -	
1			-		-
2	•			-	-
vi		·	-	-	-
C Influent	3.58	. 14.0	16.0	15.0	11.0
AC Effluent	< 0.28	0.60	< 0.49	<0.49	<0.49
	, o.e.	*	< 0.49		<0.49

All samples analyzed by USEPA Method 624, 601 or 502.2/524.2.

All concentrations are presented in micrograms per liter (µg/I).

- Not analyzed (well not installed in some cases).

Values in bold four exceed the site specific Groundwater Quality Criteria for TCE (1.0 ug/l).

TABLE 1 Continued...

Well	July 12-13, 1999	October 18-19, 1999	January 18-19, 2000	April 10-11, 2000	July 10-12, 2000	October 16-17, 2000
MWI	<0.20	. <0.20	<0.20	<0.20	< 0.27	< 0.27
MW3					· · ·	-
MW6	_		•	_	_	
MW9	•	•	-	·	-	-
MW10	10 6710 2	11 47 4 4				
	10.6/10.3	11.4/14.2	9.4/10.4	7.1/7.2	7.7/8	5.2
MW11		•	•		•	-
MW12S	1.10	1.8	1.7	1.8	1.7	1.5
MW12D	-	-	-	4.1	=	-
MW13	0.73	1.2/1.3	. 0.95	0.89	0.76	0.57
MW14S			• •		•	-
MW14D	-			-		-
MW15	. 3.40	2.9	. 2.8	< 0.20	1.3	1.4
MW16	_	-		_		
MW17						•
MW23	•	•	•		•	•
	•	•	•	9.5	•	•
MW23A	• • • • • • • • • • • • • • • • • • •	•	•	•	-	-
MW24	-	•	-	-	-	• •
MW25	14.30	17.40	17.30	15.60	20.50	29.70
MW25A	•	•	÷	•	-	-
MW25B	-	-	-		•	
B30 (MW26)	•	-	-	•		-
B30A (MW26A)			•	•	•	-
B30B (MW26B)					_	
B31 (MW27)	9.20	15.2	8.8	7.9	6.3	5.1
B32 (MW28)	7.20	13.2	,		0.5	5.1
	-	•	•	13.3	-	• .
B33 (MW29)	•	-	•	-	•	•
B52	•	-	-	-	-	-
B53	•	•	• •	7.0		-
B54	•		•	106.0	-	•
B55	-		-		-	•
B56				_	•	· <u>-</u>
B57		•		_		
B58		_	_	_	_	
B59	<0.20	13.1	18	22.8	10.2	£3
B65	<b>30.20</b>	15.1	10	24.0	10.2	53
	•	•	•	- ·	•	
B66	٠.	-	•	24.4	•	•
B66A	•	•	-	•	•	
B66B	•	•		•	•	•
B67	•	•	-	•	•	-
B68	•	• •	•		-	•
B69		•	-	•	•	-
B70			_		-	-
B70A		-			_	_
B71	_	_		9.1		
MW72	-	-	•		•	
MW73	•	-	•		•	
	•	• •	•	- •	· •	****
MW74		•	•	•	-	•
MW75	<0.20/<0.20	<0.20	<0.20	<0.20	< 0.27	< 0.27
MW76	. 0.37	0.58	0.57	0.43	< 0.27	< 0.27
MW77	2.60	3.30	2.60	2.30	3.00	2.80
MW78	0.60	0.82	1.10	0.74	0.63	0.91
MW79A	1.40	2.10	1.50	1.30	1.80	· 2.60
MW80	< 0.20	< 0.20	< 0.20	< 0.20	< 0.27	< 0.27
MW81	2.20	2.40	1.7/2.0	1.20	0.52	< 0.27
P18			2.772.0	:		
P19	•	-	-		•	-
	-	•		•	•	
P20	-	. •	•	-	-	·
P21	. •	•	•	-	•	•
P22	• .		-	-	•	•
RWI	• • •	• • •	· · · ·	•	•	
GAC Influent	31.00	25 .	25	26	19	17
GAC Effluent	< 0.32	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
GAC Mid-Vessel	< 0.32	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Notes:						

Notes

All samples analyzed by USEPA Method 624, 601 or 502.2/524.2.

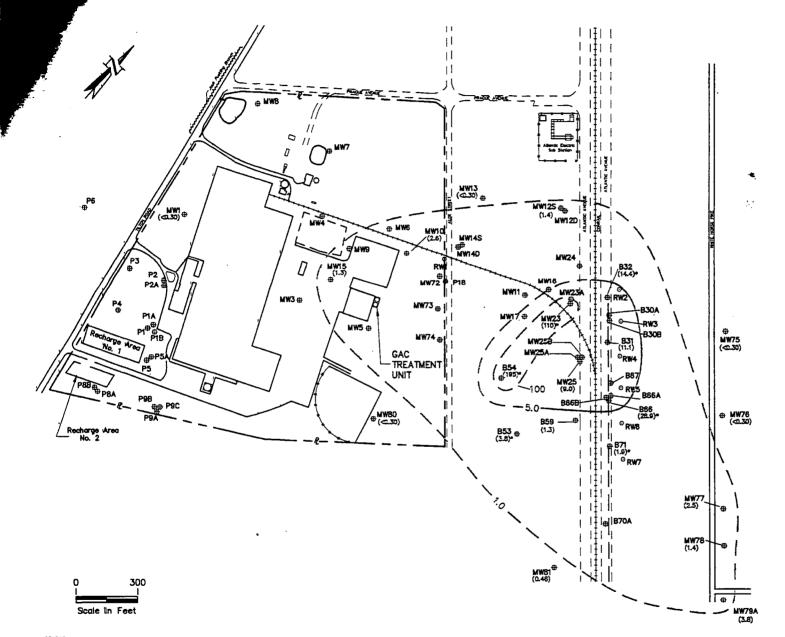
All concentrations are presented in micrograms per liter ( $\mu g/l$ ).

Values in bold font exceed the site specific Groundwater Quality Criteria for TCE (1.0 µg/l).

Not analyzed (well not installed in some cases).

#### **Germett Fleming**

FIGURE 4



#### **LEGEND**

B Location | Of Monitoring Well | With TCE Concentration in ug/l

RW5 ○ Location :Of Recovery Well

1.0 — Line Of Equal TCE
Concentration in ug/l
(Dashed Where Inferred)

B53 .Results with Asterisk Indicate (3.6)\*\* April 2007 Results

#### NOTE:

Base Map Obtained From Geraghty & Miller's August 1992 Groundwater Monitoring Report.

EXTENT OF
TRICHLOROETHYLENE
IN GROUNDWATER
JANUARY 21-23, 2002

LIENOX CHINA POMONA, NEW JERSEY

031202 35221PBP - renewal application

- new outport well - payone Palmer - pond - Notoephandlesit.

- Golf Course Use of treated water - Silver states - manifecting. Germania Stream RESW-3 RESW-2 LENOX **FACILITY** Water Tank Sandpit

FIGURE 5 - RESIDENTIAL WELL SAMPLING LOCATIONS

LENOX CHINA

POMONA, NEW JERSEY

Approximate Scale: 1 inch = 1,200 feet

Hec/d 4/2/02



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540

Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

# **VIA CERTIFIED MAIL**

March 26, 2002 File #35221.001

Keith Phillips
Atlantic County Division of Public Health
Environmental Health Unit
201 South Shore Road
Northfield, New Jersey 08225-2370

Re:

Lenox China

Residential Well Sampling Results

Dear Mr. Phillips:

Enclosed for your review are laboratory results from the potable well sampling performed by Gannett Fleming on behalf of Lenox China on March 19, 2002. Please forward the results to the homeowners listed below. Sample identifications and corresponding homeowner addresses are as follows:

RESW-1

Mr. and Mrs. Samuel Burns – 360 South Mannheim Avenue

Egg Harbor, NJ 08215

1.40% TCE

RESW-2

Mr. Cecil Heyes - 357 South Mannheim Avenue

Egg Harbor, NJ 08215

1.3 ppb bonzone? We

RESW-3

Ms. Linda Paulmeno – 353 South Mannheim Avenue

(P.O. Box 69, Cologne, NJ 08213)

TB

QA/QC Trip Blank

Please call John Kinkela, Lenox China at (609) 965-8272 to discuss the sampling results.

Very truly yours,

GANNETT FLEMING, INC.

Rober Bunca

Robyn Berner

Project Hydrogeologist

Enc.

Client Sample ID: RESW-1 Lab Sample ID: N10622-1

Matrix: DW - Drinking Water Method: EPA 524.2 REV 4.1

Project: Lenox, Pomona, NJ **Date Sampled:** 03/19/02 Date Received: 03/19/02

Percent Solids: n/a.

File ID DF Analyzed Ву Prep Date **Prep Batch Analytical Batch** D51870.D Run #1 1 03/20/02 YL n/a n/a VD2190 Run #2

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-l	Acetone	ND:		1.1	ug/l
78-93-3	2-Butanone	ND		0.65	ug/l
71-43-2	Benzene	ND	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND		0.27	ug/l
74-97-5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND.		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.33	ug/l
98-06-6	tert-Butylbenzene	ND		0.21	ug/l
75-15-0	Carbon disulfide	ND		0.47	ug/l
108-90-7	Chlorobenzene	ND	50	0.28	ug/l
75-00-3	Chloroethane	ND		0.47	ug/l
67-66-3	Chloroform	5.0		0.30	ug/l
74-87-3	Chloromethane	ND:		0.46	ug/l
95-49-8	o-Chlorotoluene	ND		0.28	ug/l
106-43-4	p-Chlorotoluene	ND .		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	l, l-Dichloroethane	ND	50	0.35	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.39	ug/l
563-58-6	1,1-Dichloropropene	ND		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050	0.26	ug/l
107-06-2	1,2-Dichloroethane	ND	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	ND	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-1	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ND		0.39	ug/l
75-71-8	Dichlorodifluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	ug/l
95-50-1	o-Dichlorobenzene	ND	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	ND	75	0.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l

ND = Not detected

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Client Sample ID: RESW-1

Lab Sample ID: N10622-1

DW - Drinking Water Matrix: Method: EPA 524.2 REV 4.1

Lenox, Pomona, NJ Project:

Date Sampled: 03/19/02

Date Received: 03/19/02 Percent Solids: n/a

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l
100-41-4	Ethylbenzene	ND-	700	0.31	ug/l
87-68-3	Hexachlorobutadiene	ND.		0.39	ug/l
110-54-3	Hexane	ND		0.71	ug/l
591-78-6	2-Hexanone	ND		0.40	ug/l
98-82-8	Isopropylbenzene	ND		0.31	ug/l
99-87-6	p-Isopropyltoluene	ND		0.26	ug/l
75-09-2	Methylene chloride	ND	3.0	0.39	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	· 70	0.26	ug/l ·
108-10-1	4-Methyl-2-pentanone	ND		0.49	ug/l
91-20-3	Naphthalene	ND	300	0.44	ug/l
103-65-1	n-Propylbenzene	ND		0.24	ug/i
100-42-5	Styrene	ND	100	0.15	ug/l
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.38	ug/l
71-55-6	1,1,1-Trichloroethane	ND	30	0.34	ug/l
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.34	ug/l
87-61-6	1,2,3-Trichlorobenzene	ND		0.51	ug/l
96-18-4	1,2,3-Trichloropropane	ND		0.41	ug/l
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.32	ug/l
95-63-6	1,2,4-Trimethylbenzene	ND		0.18	ug/l
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l
108-88-3	Toluene	ND	1000	0.26	ug/l
79-01-6	Trichloroethylene	1.4	1.0	0.39	ug/l
75-69-4	Trichlorofluoromethane	ND		0.21	ug/l
75-01-4	Vinyl chloride	ND	2.0	0.32	ug/l
	m,p-Xylene	ND		0.31	ug/l
95-47-6	o-Xylene	ND		0.32	ug/l
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l
CAS No.	Surrogate Recoveries	Run# 1	Run	# 2	Limits
2199-69-1	1,2-Dichlorobenzene-d4	105%			66-113%
460-00-4	4-Bromofluorobenzene	95%			57-111%

Client Sample ID: RESW-2

Lab Sample ID: N10622-2

Matrix: DW - Drinking Water Method: EPA 524.2 REV 4.1

Project: Lenox, Pomona, NJ

Date Sampled: 03/19/02 Date Received: 03/19/02

Percent Solids: n/a

**Analytical Batch** File ID DF Analyzed Ву **Prep Date** Prep Batch Run #1 D51871.D 1 03/20/02 YL VD2190 n/a n/a

Run #2

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-1	Acetone	ND		1.1	ug/l
78-93-3	2-Butanone	ND		0.65	ug/l
71-43-2	Benzene	1.3	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND		0.27	ug/l
74-97-5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.33	ug/l
9 <b>8-06-</b> 6	tert-Butylbenzene	ND		0.21	ug/l
75-15-0	Carbon disulfide	ND-		0.47	ug/l
108-90-7	Chlorobenzene	ND	50	0.28	ug/l
75-00-3	Chloroethane	ND		0.47	ug/l
67-66-3	Chloroform	0.72		0.30	ug/l
74-87-3	Chloromethane	ND		0.46	ug/l
95-49-8	o-Chlorotoluene	ND		0.28	ug/l
106-43-4	p-Chlorotoluene	ND		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	1,1-Dichloroethane	ND	50	0.35	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.39	ug/l
563-58-6	1,1-Dichloropropene	ND		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050	0.26	ug/i
107-06-2	1,2-Dichloroethane	ND	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	ND	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-1	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ND		0.39	ug/l
75-71-8	Dichlorodifluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	ug/l
95-50-1	o-Dichlorobenzene	ND	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	0.26	75	0.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l

ND = Not detected

E = Indicates value exceeds calibration range

J = Indicates an estimated value

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

8

N = Indicates presumptive evidence of a compound

Client Sample ID: RESW-2

Lab Sample ID:

N10622-2

Matrix: DW - Drinking Water Method: EPA 524.2 REV 4.1

Lenox, Pomona, NJ

Date Sampled: 03/19/02

Date Received: 03/19/02 Percent Solids: n/a

#### **VOA List**

Project:

					•	
CAS No.	Compound	Result	MCL	RL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l	
100-41-4	Ethylbenzene	ND	700	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND		0.39	ug/l	
110-54-3	Hexane	ND		0.71	ug/l	
591-78-6	2-Hexanone	ND		0.40	ug/l	
98-82-8	Isopropylbenzene	ND		0.31	ug/l	
99-87-6	p-Isopropyltoluene	ND		0.26	ug/l	
75-09-2	Methylene chloride	ND:	3.0	0.39	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	70	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone	ND		0.49	ug/l	
91-20-3	Naphthalene	ND	300	0.44	ug/l	
103-65-1	n-Propylbenzene	ND:		0.24	ug/l	
100-42-5	Styrene	ND.	100	0.15	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.38	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	30	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.34	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND		0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	•	0.41	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.32	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND		0.18	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1000	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.39	ug/l	
75-69-4	Trichlorofluoromethane	ND		0.21	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.32	ug/l	
	m,p-Xylene	ND ·		0.31	ug/l	
95-47-6	o-Xylene	ND		0.32	ug/l	
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run/	<b># 2</b>	Limits	
2199-69-1	1,2-Dichlorobenzene-d4	108%			66-113%	
460-00-4	4-Bromofluorobenzene	97%		•	57-111%	

Client Sample ID: RESW-3

Lab Sample ID:

N10622-3

DW - Drinking Water EPA 524.2 REV 4.1

Method: Lenox, Pomona, NJ Project:

Date Sampled: 03/19/02 Date Received: 03/19/02

Percent Solids: n/a

File ID DF Analyzed Ву **Prep Date** Prep Batch **Analytical Batch** Run #1 D51873.D 1 03/20/02 YL n/a VD2190 n/a

Run #2

Matrix:

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units Q
67-64-l	Acetone	ND .		1.1	ug/l
78-93-3	2-Butanone	ND		0.65	ug/l
71-43-2	Benzene	ND	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND		0.27	ug/l
74-97-5	Bromochloromethane	ND		0.36	ug/l
75-27-4	Bromodichloromethane	ND		0.23	ug/l
75-25-2	Bromoform	ND		0.40	ug/l
74-83-9	Bromomethane	ND		0.37	ug/l
104-51-8	n-Butylbenzene	ND		0.31	ug/l
135-98-8	sec-Butylbenzene	ND		0.33	ug/l
98-06-6	tert-Butylbenzene	ND.		0.21	ug/l
75-15-0	Carbon disulfide	ND		0.47	ug/l
108-90-7	Chlorobenzene	ND	50	0.28	ug/l
75-00-3	Chloroethane	ND		0.47	ug/l
67-66-3	Chloroform	3.1		0.30	ug/l
74-87-3	Chloromethane	ND:		0.46	ug/l
95-49-8	o-Chlorotoluene	ND.		0.28	ug/l
106-43-4	p-Chlorotoluene	ND		0.28	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.42	ug/l
75-34-3	1,1-Dichloroethane	ND	50	0.35	ug/I
7 <del>5</del> -35-4	1,1-Dichtoroethylene	ND	2.0	0.39	ug/l
563-58-6	1,1-Dichloropropene	ND:		0.41	ug/l
96-12-8	1,2-Dibromo-3-chloropropane		0.20	0.70	ug/l
106-93-4	1,2-Dibromoethane	ND	0.050		ug/l
107-06-2	1,2-Dichloroethane	ND.	2.0	0.26	ug/l
78-87-5	1,2-Dichloropropane	NĎ	5.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND		0.18	ug/l
594-20-7	2,2-Dichloropropane	ND		0.28	ug/l
124-48-1	Dibromochloromethane	ND		0.27	ug/l
74-95-3	Dibromomethane	ND		0.39	ug/l
75-71-8	Dichloroditluoromethane	ND		0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND		0.16	ug/l
541-73-1	m-Dichlorobenzene	ND	600	0.27	ug/l
95-50-1	o-Dichlorobenzene	ND	600	0.21	ug/l
106-46-7	p-Dichlorobenzene	ND	75	0.18	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	100	0.33	ug/l

10

ND = Not detected

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96) B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

J = Indicates an estimated value

N = Indicates presumptive evidence of a compound

# **Report of Analysis**

Client Sample ID: RESW-3

Lab Sample ID: N10622-3 Matrix:

Method: Project: Lenox, Pomona, NJ

Date Sampled: 03/19/02 Date Received: 03/19/02 DW - Drinking Water Percent Solids: n/a EPA 524.2 REV 4.1

#### **VOA List**

CAS No.	Compound	Result	MCL	RL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	ND	70	0.32	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.19	ug/l	
100-41-4	Ethylbenzene	ND	700	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND		0.39	ug/l	
110-54-3	Hexane	ND	. •	0.71	ug/l	
591-78-6	2-Hexanone	ND		0.40	ug/l	
98-82-8	Isopropylbenzene	ND		0.31	ug/l	
99-87-6	p-Isopropyltoluene	ND		0.26	ug/l	
75-09-2	Methylene chloride	ND	3.0	0.39	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	70	0.26	ug/l	
108-10-1	4-Methyl-2-pentanone	ND		0.49	ug/l	
91-20-3	Naphthalene .	ND	300	0.44	ug/l	
103-65-1	n-Propylbenzene	ND		0.24	ug/l	
100-42-5	Styrene	ND	100	0.15	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND.		0.38	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	30	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	- 3.0	0.34	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND		0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND		0.41	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND.	9.0	0.32	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND.		0.18	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND		0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Totuene	ND	1000		ag/l	
79-01-6	Trichloroethylene	ND	1.0	0.39	ug/l	
75-69-4	Trichlorofluoromethane	ND.		0.21	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.32	ug/l	
	m,p-Xylene	ND		0.31	ug/l	
95-47-6	o-Xylene	ND		0.32	ug/l	
1330-20-7	Xylenes (total)	ND	1000	0.31	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run	# 2	Limits	
2199-69-1	1,2-Dichlorobenzene-d4	103%			66-113%	
460-00-4	4-Bromotluorobenzene	97%			57-111%	,

J = Indicates an estimated value



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540 Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

#### VIA FEDERAL EXPRESS

December 16, 2002 File #35221.005

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re: Geoprobe Sampling Status Report

Lenox China, Pomona, New Jersey

NJD 002325074

Dear Mr. Faranca:

On behalf of Lenox China (Lenox), Gannett Fleming (GF) prepared this status report to update NJDEP on the progress of the Geoprobe investigation to reestablish the TCE Classification Exception Area (CEA) downgradient of the Lenox facility. At the May 16, 2002 meeting between Lenox, NJDEP and USEPA, Lenox indicated that it anticipated submitting a report documenting the findings of the investigation and an evaluation of potential remedial alternatives by mid December of this year. As you are aware, the field work phase of the project is taking longer than expected, due in part to the expanded scope of the investigation and the time necessary to evaluate the field data and obtain additional NJDEP boring permits in pace with the work. The purpose of this letter is to provide the Department with a summary of the investigation findings to date and to outline the scope of and schedule for the remaining activities to be completed.

# Geoprobe Sampling Results – White Horse Pike, Mannheim Avenue and Harmony Avenue

Groundwater sampling was performed in accord with the June 12 plan prepared by GF and approved by NJDEP. At the request of NJDEP, groundwater was sampled at 50 to 52 feet below grade, in addition to the originally proposed sampling depth of 63 to 65 feet below grade, to assess the vertical distribution of TCE at each location. The attached Figure shows the locations at which groundwater samples were collected during the initial phase of the project (John Kinkela will forward to the Department a more legible

#### Gannett Fleming

Frank Faranca New Jersey Department of Environmental Protection December 16, 2002

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Figure under separate cover). Table 1 summarizes and compares the TCE results obtained from the field gas chromatograph (GC) and the fixed laboratory. As shown in Table 1, there was good agreement between the field GC and fixed laboratory data, indicating that the field screening results are a reliable indicator of groundwater conditions.

Sampling began along White Horse Pike, approximately 100 feet east of well MW-79A, and proceeded to the east at roughly 100-foot intervals. The field screening data indicate that TCE concentrations range from 2.75  $\mu$ g/l at S-1B to 3.5  $\mu$ g/l at S-3B and S-4B. The sample from S-5B contained TCE at an estimated concentration of 0.2  $\mu$ g/l, and the sample from S-6B did not contain TCE at a concentration exceeding the instrument detection limit. The shallow zone sampling results show that TCE was not detected in the 50 to 52 foot depth at any location.

The initial sampling point on Mannheim Avenue was established at the midpoint of the property owned by Samuel Burns, approximately 1,080 feet north of well MW-79A. Sampling proceeded north along Mannheim at approximately 100-foot intervals. TCE was detected in the samples from S-2B and -7B at 2.1 µg/l and at an estimated concentration of 0.25 µg/l, respectively. The sample from S-8B did not contain TCE at a concentration exceeding the instrument detection limit. The shallow zone sampling results indicate that TCE was not detected in groundwater from the 50 to 52 foot depth at locations S-2 and -8. A shallow zone sample was not collected from location S-7 because, at that time, NJDEP had approved GF's request to eliminate the shallow zone sampling from the monitoring program.

Four locations were selected along the paper street identified as Harmony Avenue to establish the downgradient extent of the TCE plume. TCE was not detected in the first three samples east of Mannheim Avenue (W-1, -2 and -3) at a concentration exceeding the instrument detection limit. The sample from W-4 contained TCE at  $6 \mu g/l$ .

#### Additional Sampling – Atlantic Avenue

To better establish the southern extent of the plume toward the plant property, Lenox collected additional samples from three locations along Atlantic Avenue. The initial sampling location was established at RR-1, approximately 75 feet southeast of well MW-81, and the sampling proceeded along Atlantic Avenue at approximately 150-foot intervals. TCE was detected in samples RR-1 and -2 at 19  $\mu$ g/l and 1  $\mu$ g/l, respectively. The sample from RR-3 did not contain TCE at a concentration exceeding the instrument detection limit.

#### **Gannett Fleming**

Frank Faranca New Jersey Department of Environmental Protection December 16, 2002

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#### Remedial Alternatives Analysis

GF is continuing its review of potential remedial alternatives to address the TCE plume. Based on the current monitoring database, the three most likely options to be further evaluated continue to be in-situ chemical reduction; pump and treat; and air sparging. A final determination on the remedial approach will be made after the nature and extent of the TCE plume is more fully characterized.

#### **Proposed Sampling**

The extent of the TCE plume has been defined to the north along Mannheim Avenue and the southeast along White Horse Pike. The following additional sampling will be done during the next phase of field work to characterize the plume to the east, downgradient of Harmony Avenue, and to the southwest toward the plant property:

- Three sampling locations on Lot 467.03, Blocks 1.01 and 22, downgradient of Harmony Avenue. These properties are privately owned and Lenox is in the process of obtaining access approval from the property owner.
- Four locations along Aloe Street, near the intersection of Mannheim Avenue.
- Two locations on Lot 457, Block 3.01. This property is privately owned and Lenox is in the process of obtaining access approval from the property owner.

#### **Schedule**

The next phase of field work will begin in January. The Geoprobe contractor has applied for and, as of this date, received most of the NJDEP Soil Boring Permits necessary to continue the work. The contractor expects to receive the remaining permits by the end of next week. Lenox has received verbal approval from the private property owners to access their parcels for the Geoprobe sampling. Assuming no further sampling will be required after this phase of work is completed, Lenox anticipates submitting its final report to NJDEP in March 2003.

Frank Faranca New Jersey Department of Environmental Protection December 16, 2002

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Please call or email John Kinkela at Lenox (609-965-8272; John\_Kinkela@Lenox.com) if you have any questions.

Very truly yours,

GANNETT FLEMING, INC

AMES M. BARISH, CPG

Project Manager/Senior Hydrogeologist

Attch.

cc: Barry Tornick

Andrew Park

Daryl Clark

Lou Fantin

John Kinkela

Gary Berman

# LENOX CHINA POMONA, NEW JERSEY

TABLE 1
FIELD GC AND LABORATORY CONFIRMATION RESULTS

Sample ID	Depth	Field GC	Lab				
Whitehorse Pike Locations							
MW-79A	60-70	7.2	5.1				
S-1A	50-52	<1					
S-1B	63-65	2.75					
S-3A	50-52	<1					
S-3B	63-65	3.5	1.1				
S-4A	50-52	<1	<u></u>				
S-4B	63-65	3.5					
S-5A	50-52	<1					
S-5B	63-65	0.2*	0.42				
S-6A	50-52	<1					
S-6B	63-65	<1	< 0.15				
Mannheim Avenue Locations							
S-2A**	50-52	<1	< 0.15				
S-2B	63-65	2.1					
S-7A	63-65	0.25*					
S-8A	50-52	<1					
S-8B	63-65	<1	< 0.15				
Wooded Area - Harmony Avenue Locations							
W-1	63-65	<1	< 0.15				
W-2	63-65	<1	< 0.15				
W-3	63-65	<1					
W-4	63-65	6					
Atlantic Avenue							
RR-1	63-65	19					
RR-2	63-65	1					
RR-3	63-65	<1	<0.15				

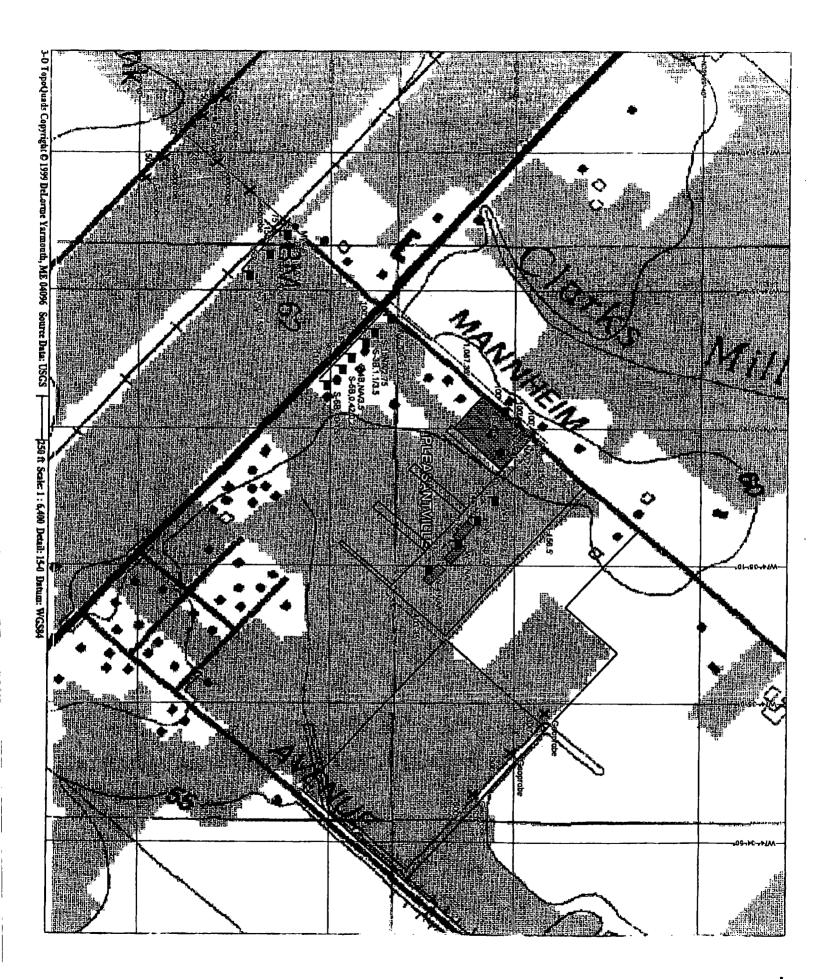
#### Notes:

All results are ug/l TCE

<sup>\*</sup> Estimated value

<sup>\*\*</sup> Midpoint of Burns' property

<sup>---</sup> Not analyzed





# State of New Jersey

James E. McGreevey

Governor

Department of Environmental Protection

Bradley M. Campbell
Commissioner

January 14, 2003

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re: Lenox China Facility

Geoprobe Sampling Status Report Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) received the above referenced document prepared by Gannett Fleming, Inc. on behalf of Lenox Incorporated, dated December 16, 2002. The Department has determined that the report and the proposed sampling locations are acceptable with the following minor comments:

- 1. The sampling depth of the geoprobes installed along Harmony Avenue will be at the interval above the clay layer. Based on previous data this is expected to be 63 to 65 feet below grade.
- 2. For the remaining proposed geoprobe locations (i.e., a long A loe S treet and on the private property), multiple interval sampling will be required for vertical profiling. The Department recommends the following intervals 40-43 ft., 50-53 ft. and 60-63 ft.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Project Manager Bureau of Case Management

C: Andrew Park, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA

**Andy Park** 

To: Frank Faranca < Frank. Faranca@dep.state.nj.us>

01/13/03 10:30 AM

Subject: Re: Lenox China - Geoprobe Status Report (12/16/02)

Frank, the letter looks good. Andy

Frank Faranca < Frank. Faranca@dep.state.nj.us>



Frank Faranca <Frank.Faranca@dep. state.nj.us> To: Andy Park/R2/USEPA/US@EPA

CC:

cc:

Subject: Lenox China - Geoprobe Status Report (12/16/02)

01/10/03 08:08 AM

Reply Requested: Sunday, January 12, 2003

Andy,

I have attached a copy of my draft letter to Lenox regarding the above report. I would like to send out this letter on Monday. Please let me know if you have any comments. Thanks

Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028 phone: 609-984-4071

fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us Geoprobe Status Report. Frank Faranca.v



**Barry Tornick** 

01/13/03 10:27 AM

To: Andy Park/R2/USEPA/US@EPA

CC:

Subject: Re: Lenox China - Geoprobe Status Report (12/16/02)

I reviewed the letter and agreed with the approach. However, I don't remember details such as the appropriate depth of the wells, which Frank discusses in the approval. If you agree, you may approve it.

Andy Park

**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

01/13/2003 10:17 AM

CC:

Subject: Re: Lenox China - Geoprobe Status Report (12/16/02)

As part of the ongoing investigation delineating the TCE groundwater contamination, Gannett Fleming on behalf of Lenox submitted the latest findings in a letter to DEP dated December 16, 2002. The letter also proposes an additional investigation to delineate the plume to the east, downgradient of Harmony Avenue, and to the southwest toward the plant property. The draft NJDEP letter is to approve the proposal. I understand that you previously reviewed the letter. Please let me know if you need to be reminded of the details or more information.

Barry Tornick



**Barry Tornick** 

01/13/03 09:26 AM

To: Andy Park/R2/USEPA/US@EPA

cc:

Subject: Re: Lenox China - Geoprobe Status Report (12/16/02)

I have no basis for commenting on the technical detail presented. If you would like to provide to me some background, I would be willing to listen.

Andy Park

**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

01/10/2003 03:58 PM

Subject: Lenox China - Geoprobe Status Report (12/16/02)

Attached below for your review is a letter from NJDEP to Lenox China concerning the ongoing Geoprobe Sampling. The letter is acceptable to me. Please let me know if you have any comments.



**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

01/13/03 10:17 AM

cc:
Subject: Re: Lenox China · Geoprobe Status Report (12/16/02)

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**Barry Tornick** 



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To: Andy Park/R2/USEPA/US@EPA

01/13/03 09:26 AM

cc: Subject: Re: Lenox China Geoprobe Status Report (12/16/02)園

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Andy Park

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01/10/2003 03:58 PM

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01/13/03 09:26 AM

cc:
Subject: Re: Lenox China - Geoprobe Status Report (12/16/02)

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Andy Park

Andy Park

To: Barry Tornick/R2/USEPA/US@EPA

01/10/2003 03:58 PM

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**Andy Park** 

To: Barry Tornick/R2/USEPA/US@EPA

01/10/03 03:58 PM

Subject: Lenox China - Geoprobe Status Report (12/16/02)

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#### Frank Faranca <Frank.Faranca@dep. state.nj.us>

To: Andy Park/R2/USEPA/US@EPA

cc:

Subject: Lenox China - Geoprobe Status Report (12/16/02)

01/10/03 08:08 AM

+=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+=+=
Reply Requested: Sunday, January 12, 2003
1

Andy,

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Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028 phone: 609-984-4071 fax: 609-633-1439



e-mail: Frank Faranca@dep.state.nj.us Geoprobe Status Report. Frank Faranca.v

January 13, 2003

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re: Lenox China Facility

Geoprobe Sampling Status Report Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) received the above referenced document prepared by Gannett Fleming, Inc. on behalf of Lenox Incorporated, dated December 16, 2002. The Department has determined that the report and the proposed sampling locations are acceptable with the following minor comments:

- 1. The sampling depth of the geoprobes installed along Harmony Avenue will be at the interval above the clay layer. Based on previous data this is expected to be 63 to 65 feet below grade.
- 2. For the remaining proposed geoprobe locations (i.e. along Aloe Street and on the private property), multiple interval sampling will be required for vertical profiling. The Department recommends the following intervals 40-43 ft., 50-53 ft. and 60-63 ft.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Project Manager Bureau of Case Management

C: Andrew Park, USEPA, Region II Daryl Clark, NJDEP/DPFSR/BGWPA



Frank Faranca <Frank.Faranca@dep. state.nj.us>

12/18/02 12:49 PM

To: John\_Kinkela@Lenox.com

cc: Daryl Clark < Daryl. Clark@dep.state.nj.us>, Andy

Park/R2/USEPA/US@EPA

Subject: Geoprobe Sampling Status Report (Dec. 16, 2002)

#### John,

I have received your voice mail message. Unfortunately, I have a meeting already scheduled at 1:30 PM in another DEP building, and will not be returning to my office today. You can feel free to reach out to Daryl on the above referenced status report. I have reviewed it and it looks OK to me, but I will defer to Daryl. The 6 ppb hit on W-4 is surprising. However, it appears that you have everything under control. I will be back in the office tomorrow. Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028 phone: 609-984-4071

fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us Frank Faranca.v



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540 Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

#### VIA FEDERAL EXPRESS

December 16, 2002 File #35221.005

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re: Geoprobe Sampling Status Report

Lenox China, Pomona, New Jersey

Dear Mr. Faranca:

On behalf of Lenox China (Lenox), Gannett Fleming (GF) prepared this status report to update NJDEP on the progress of the Geoprobe investigation to reestablish the TCE Classification Exception Area (CEA) downgradient of the Lenox facility. At the May 16, 2002 meeting between Lenox, NJDEP and USEPA, Lenox indicated that it anticipated submitting a report documenting the findings of the investigation and an evaluation of potential remedial alternatives by mid December of this year. As you are aware, the field work phase of the project is taking longer than expected, due in part to the expanded scope of the investigation and the time necessary to evaluate the field data and obtain additional NJDEP boring permits in pace with the work. The purpose of this letter is to provide the Department with a summary of the investigation findings to date and to outline the scope of and schedule for the remaining activities to be completed.

# Geoprobe Sampling Results – White Horse Pike, Mannheim Avenue and Harmony Avenue

Groundwater sampling was performed in accord with the June 12 plan prepared by GF and approved by NJDEP. At the request of NJDEP, groundwater was sampled at 50 to 52 feet below grade, in addition to the originally proposed sampling depth of 63 to 65 feet below grade, to assess the vertical distribution of TCE at each location. The attached Figure shows the locations at which groundwater samples were collected during the initial phase of the project (John Kinkela will forward to the Department a more legible

Frank Faranca New Jersey Department of Environmental Protection December 16, 2002

- 2 -

Figure under separate cover). Table 1 summarizes and compares the TCE results obtained from the field gas chromatograph (GC) and the fixed laboratory. As shown in Table 1, there was good agreement between the field GC and fixed laboratory data, indicating that the field screening results are a reliable indicator of groundwater conditions.

Sampling began along White Horse Pike, approximately 100 feet east of well MW-79A, and proceeded to the east at roughly 100-foot intervals. The field screening data indicate that TCE concentrations range from 2.75  $\mu$ g/l at S-1B to 3.5  $\mu$ g/l at S-3B and S-4B. The sample from S-5B contained TCE at an estimated concentration of 0.2  $\mu$ g/l, and the sample from S-6B did not contain TCE at a concentration exceeding the instrument detection limit. The shallow zone sampling results show that TCE was not detected in the 50 to 52 foot depth at any location.

The initial sampling point on Mannheim Avenue was established at the midpoint of the property owned by Samuel Burns, approximately 1,080 feet north of well MW-79A. Sampling proceeded north along Mannheim at approximately 100-foot intervals. TCE was detected in the samples from S-2B and -7B at 2.1 µg/l and at an estimated concentration of 0.25 µg/l, respectively. The sample from S-8B did not contain TCE at a concentration exceeding the instrument detection limit. The shallow zone sampling results indicate that TCE was not detected in groundwater from the 50 to 52 foot depth at locations S-2 and -8. A shallow zone sample was not collected from location S-7 because, at that time, NJDEP had approved GF's request to eliminate the shallow zone sampling from the monitoring program.

Four locations were selected along the paper street identified as Harmony Avenue to establish the downgradient extent of the TCE plume. TCE was not detected in the first three samples east of Mannheim Avenue (W-1, -2 and -3) at a concentration exceeding the instrument detection limit. The sample from W-4 contained TCE at  $6 \mu g/l$ .

#### Additional Sampling - Atlantic Avenue

To better establish the southern extent of the plume toward the plant property, Lenox collected additional samples from three locations along Atlantic Avenue. The initial sampling location was established at RR-1, approximately 75 feet southeast of well MW-81, and the sampling proceeded along Atlantic Avenue at approximately 150-foot intervals. TCE was detected in samples RR-1 and -2 at 19  $\mu$ g/l and 1  $\mu$ g/l, respectively. The sample from RR-3 did not contain TCE at a concentration exceeding the instrument detection limit.

#### **Gannett Fleming**

Frank Faranca New Jersey Department of Environmental Protection December 16, 2002

- 3 -

#### Remedial Alternatives Analysis

GF is continuing its review of potential remedial alternatives to address the TCE plume. Based on the current monitoring database, the three most likely options to be further evaluated continue to be in-situ chemical reduction; pump and treat; and air sparging. A final determination on the remedial approach will be made after the nature and extent of the TCE plume is more fully characterized.

#### **Proposed Sampling**

The extent of the TCE plume has been defined to the north along Mannheim Avenue and the southeast along White Horse Pike. The following additional sampling will be done during the next phase of field work to characterize the plume to the east, downgradient of Harmony Avenue, and to the southwest toward the plant property:

- Three sampling locations on Lot 467.03, Blocks 1.01 and 22, downgradient of Harmony Avenue. These properties are privately owned and Lenox is in the process of obtaining access approval from the property owner.
- Four locations along Aloe Street, near the intersection of Mannheim Avenue.
- Two locations on Lot 457, Block 3.01. This property is privately owned and Lenox is in the process of obtaining access approval from the property owner.

#### Schedule 5 chedule 5 chedu

The next phase of field work will begin in January. The Geoprobe contractor has applied for and, as of this date, received most of the NJDEP Soil Boring Permits necessary to continue the work. The contractor expects to receive the remaining permits by the end of next week. Lenox has received verbal approval from the private property owners to access their parcels for the Geoprobe sampling. Assuming no further sampling will be required after this phase of work is completed, Lenox anticipates submitting its final report to NJDEP in March 2003.

# **Gannett Fleming**

Frank Faranca New Jersey Department of Environmental Protection December 16, 2002

- 4 -

Please call or email John Kinkela at Lenox (609-965-8272; John\_Kinkela@Lenox.com) if you have any questions.

Very truly yours,

GANNETT FLEMING, INC

JAMES M. BARISH, CPG

Project Manager/Senior Hydrogeologist

Attch.

cc: Barry Tornick

S. Projects' Lenn x'3522 (ftti5 etatus report 12\_02

Andrew Park Daryl Clark

Lou Fantin

John Kinkela

Gary Berman

## LENOX CHINA POMONA, NEW JERSEY

TABLE 1
FIELD GC AND LABORATORY CONFIRMATION RESULTS

Sample ID	Depth	Field GC	Lab				
Whitehorse Pike Locations							
MW-79A	60-70	7.2	5.1				
S-1A	50-52	<1					
S-1B	63-65	2.75					
S-3A	50-52	<1					
S-3B	63-65	3.5	1.1				
S-4A	50-52	<1					
S-4B	63-65	3.5					
S-5A	50-52	<1					
S-5B	63-65	0.2*	0.42				
S-6A	50-52	<1					
S-6B	63-65	<1	< 0.15				
Mannheim Avenue Locations							
S-2A**	50-52	<1	< 0.15				
S-2B	63-65	2.1					
S-7A	63-65	0.25*					
S-8A	50-52	<1					
S-8B	63-65	<1	< 0.15				
Wooded Area - Harmony Avenue Locations							
W-1	63-65	<1	< 0.15				
W-2	63-65	<1	< 0.15				
W-3	63-65	<1					
W-4	63-65	6					
Atlantic Avenue							
RR-1	63-65	19					
RR-2	63-65	1					
RR-3	63-65	<1	<0.15				

1010

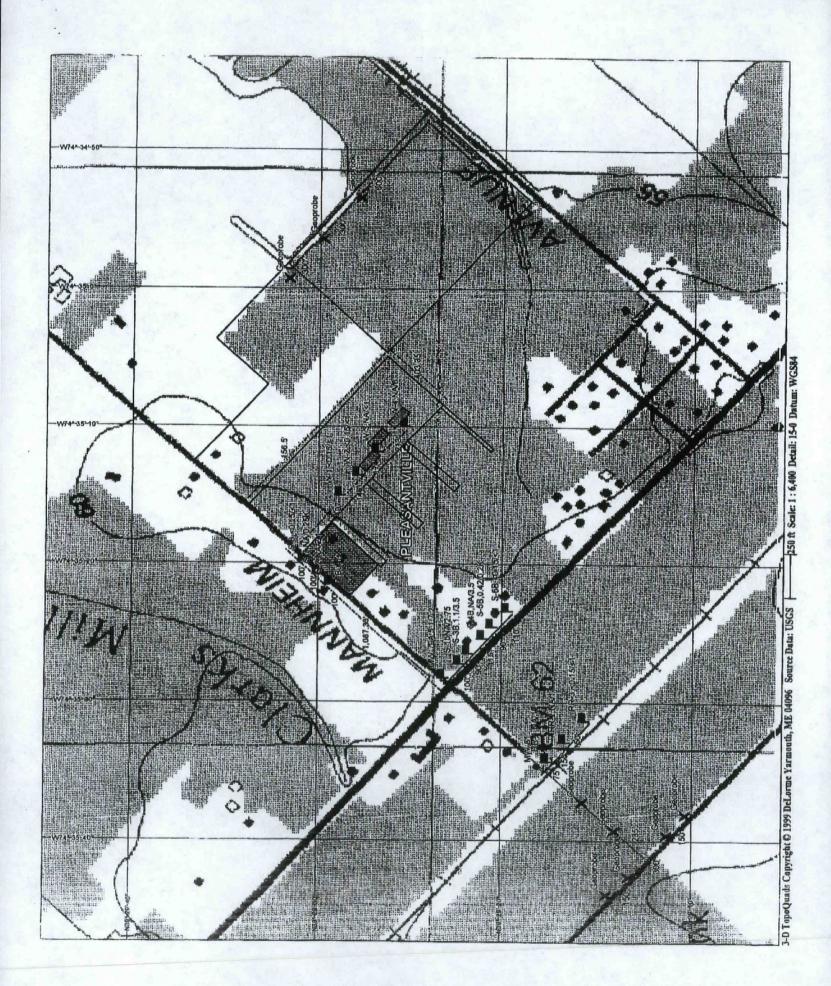
#### Notes:

All results are ug/l TCE

<sup>\*</sup> Estimated value

<sup>\*\*</sup> Midpoint of Burns' property

<sup>---</sup> Not analyzed





Frank Faranca <Frank.Faranca@dep. state.nj.us>

10/22/02 04:10 PM

To: Daryl Clark < Daryl.Clark@dep.state.nj.us>, Andy Park/R2/USEPA/US@EPA

CC

Subject: Fwd: Lenox Geoprobe Sampling

Andy & Daryl, Please see attached. FYI Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028

phone: 609-984-4071 fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us

..... Message from "Barish, James M." <jbarish@GFNET.com> on Tue, 22 Oct 2002 15:54:57

-0400 ----

To: "Faranca, Frank (E-mail)" <FFARANCA@dep.state.nj.us>, "Daryl Clark (E-mail)"

<Daryl.Clark@dep.state.nj.us>

cc: "John Kinkela (E-mail)" < John\_Kinkela@Lenox.com>, "Gary Berman (E-mail)" < gwbemb@aol.com>

Subject Lenox Geoprobe Sampling

Frank/Daryl: looks like we have all of our permits in place and we're planning to start the Geoprobe work tomorrow (10/23). The sampling should be completed in about 3 days.

Jim

James M. Barish, CPG
Project Manager/Senior Hydrogeologist
Gannett Fleming, Inc.
202 Wall Street
Princeton, NJ 08540
tel 609-279-9140
fax 609-279-9436
jbarish@gfnet.com



Frank Faranca.v



To: "Faranca, Frank (E-mail)" <FFARANCA@dep.state.nj.us>
cc: "John Kinkela (E-mail)" <John\_Kinkela@Lenox.com>,
 "'Daryl.Clark@Dep.state.nj.us" <Daryl.Clark@Dep.state.nj.us>,
 Andy Park/R2/USEPA/US@EPA

Subject: Status Update

Frank, John forwarded me your email from this morning. You should have received a FedEx this morning with my letter transmitting the maps and tentative schedule for the work. Andy should have received the same. NJDOT just gave me verbal approval on the permits for working along the White Horse Pike, and the utility markouts are being processed. As of today, we are planning to start the work on Tuesday, October 21, absent any delays in getting the utility markouts completed. We anticipate that the work will be completed in three days, weather permitting.

Give me a call if you need to discuss anything further.

Jim

James M. Barish, CPG
Project Manager/Senior Hydrogeologist
Gannett Fleming, Inc.
202 Wall Street
Princeton, NJ 08540
tel 609-279-9140
fax 609-279-9436
jbarish@gfnet.com



Frank Faranca <Frank.Faranca@dep. state.nj.us>

10/17/02 11:55 AM

To: John\_Kinkela@lenox.com

cc: Daryl Clark <Daryl.Clark@dep.state.nj.us>, Andy

Park/R2/USEPA/US@EPA

Subject: Status Update

#### John,

Can you please provide a status update from our last conference call? Specifically, from my meeting notes on 10-1-02, we were supposed to receive a scaled map from Lenox on or before October 4th. In addition, sampling was to occur by Mid-October. We have not received either the map or a notice that sampling will begin shortly. This is important because Daryl needs to be present during the sampling event. Please advise. Thanks Frank

Frank Faranca, Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028

phone: 609-984-4071 fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us Frank Faranca.v

# NJD00 7325074



New Jersey Department of Environmental Protection Division of Remediation, Management and Response Bureau of Case Management Floor 5 West, PO Box 028

3/18/03

Phone: (609) 984-4071 OR 1455/Fax: (609) 633-1439

401 East State Street, Trenton, NJ 08625-0028

EMAIL: frank.faranca@dep.state.nj.us

TO:

Andy Park, Environmental Engineer

USEPA - Region II

FAX#:

(212) 637-4437

Date:

07/29/2003 12:41:56 PM

Frank Faranca, Remedial Project Manager FROM:

OFFICE:

**Bureau of Case Management** 

PHONE #: (609) 984-4071

FAX #:

(609) 633-1439

Andy,

Attached please find a copy of the March 14, 2003 correspondence.

If you have any questions regarding the enclosed, please contact me at the above telephone number

Frank

Lепох Unina (Pomona/Atl)

PI# 000700



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540

Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

MAR 1 @ 2003

March 14, 2003 File #35221.005

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re:

Geoprobe Sampling Report and Proposed Classification

Exception Area Revision

Lenox China, Pomona, New Jersey

Dear Mr. Faranca:

This letter summarizes the results of the Geoprobe<sup>®</sup> investigation performed by Gannett Fleming (GF) to reestablish the TCE Classification Exception Area (CEA) downgradient of the Lenox facility. The information discussed in this letter incorporates the data presented in our Geoprobe<sup>®</sup> Sampling Status Report, which was provided to NJDEP on December 16, 2002. A remedial alternatives analysis (RAA) was also performed as part of this work to identify and evaluate select remedial measures that might be appropriate in addressing the TCE-impacted groundwater in the area along White Horse Pike (Route 30). The RAA results are also presented in this letter.

# Geoprobe® Sampling Results

## White Horse Pike, Mannheim Avenue and Harmony Avenue

Groundwater sampling was performed in accord with the June 12, 2002 plan prepared by GF and approved by NJDEP. At NJDEP's request, samples were collected at 50 to 52 feet below grade in addition to the originally proposed sampling depth of 63 to 65 feet below grade, to determine the vertical distribution of TCE at each location. Figure 1 shows the sampling locations relative to the Lenox plant. Table 1 summarizes and compares the TCE results obtained from the field gas chromatograph (GC) and the fixed

Mr. Frank Faranca New Jersey DEP March 14, 2003

- 2 -

laboratory. As shown in Table 1, the agreement between the field GC and fixed laboratory data is sufficient to conclude that the field screening results are a reliable indicator of groundwater conditions.

Sampling began along White Horse Pike, approximately 100 feet east of well MW-79A, and proceeded to the east at roughly 100-foot intervals. The field screening data show TCE concentrations ranging from 2.75  $\mu$ g/l at S-1B to 3.5  $\mu$ g/l at S-3B and S-4B. The sample from S-5B contained TCE at an estimated concentration of 0.2  $\mu$ g/l, and the sample from S-6B did not contain TCE at a concentration exceeding the instrument detection limit. The shallow zone sampling results show that TCE was not detected in the 50 to 52 foot depth at any location.

The initial sampling point on Mannheim Avenue was established at the midpoint of the property owned by Samuel Burns, approximately 1,080 feet north of well MW-79A. Sampling proceeded north along Mannheim at approximately 100-foot intervals. TCE was detected in the samples from S-2B and -7B at 2.1  $\mu$ g/l and at an estimated concentration of 0.25  $\mu$ g/l, respectively. The sample from S-8B did not contain TCE at a concentration exceeding the instrument detection limit. The shallow zone sampling did not detect TCE in groundwater from the 50 to 52 foot depth at locations S-2 and -8. A shallow zone sample was not collected from location S-7 because NJDEP had approved GF's request to eliminate the shallow zone sampling from the monitoring program.

Four locations were selected along Harmony Avenue to establish the downgradient extent of the TCE plume. TCE was not detected in the first three samples east of Mannheim Avenue (W-1, -2 and -3) at a concentration exceeding the instrument detection limit. The sample from W-4 contained TCE at 6  $\mu$ g/l.

# Lot 467.03, Block 22 (Downgradient of Harmony Avenue)

Groundwater samples were collected from three locations across Block 22 in a line perpendicular to Odessa Avenue. TCE was detected in the O-1 sample at 0.4  $\mu$ g/l. Samples O-2 and O-3 did not contain TCE at a concentration exceeding the laboratory reporting limit.

# Atlantic Avenue and Aloe Street

GF collected additional samples from nine locations along Atlantic Avenue and Aloe Street to better establish the southern extent of the plume toward the plant property. The initial sampling location along Atlantic Avenue was established at RR-1, approximately 75 feet southeast of well MW-81, and the sampling proceeded at approximately 150-foot intervals parallel to the roadway. TCE was detected in samples RR-1 and -2 at 19  $\mu$ g/l and 1  $\mu$ g/l, respectively. The sample from RR-3 did not contain TCE at a concentration exceeding the instrument detection limit.

Mr. Frank Faranca New Jersey DEP March 14, 2003

- 3 -

Groundwater samples were collected from six locations along Aloe Street, with A-1 and A-2 on the north side of Mannheim Avenue and A-3 through A-7 on the south side. Spacing between the sampling points was approximately 150 feet.

On the south side of Mannheim Avenue, samples were collected at 40 to 42, 50 to 52 and 63 to 65 feet below grade at locations A-4 and A-5 (It was not necessary to sample the A-3 location because the other sample points had already bracketed the TCE plume extension). TCE was not detected in the shallow zone samples at either location, but was found in the mid depth and deeper samples at  $6.6 \mu g/l$  and  $11.7 \mu g/l$  (A-4) and  $0.93 \mu g/l$  and  $2.7 \mu g/l$  (A-5). TCE was not detected in the mid sample from A-6, but was found in the deep zone sample at  $2.2 \mu g/l$  (a shallow zone sample was not collected from this location). The deep zone sample from A-7 did not contain TCE at a concentration exceeding the instrument detection limit and it was the only sample collected from this location. Samples A-1 (mid depth and deep zone samples) and A-2 (mid depth sample only) were collected on the north side of Mannheim Avenue. TCE was detected in both samples at  $8.6 \mu g/l$  and  $2.6 \mu g/l$ , respectively. No further sampling was performed north along Aloe Street because groundwater conditions in this area downgradient of the Lenox facility have been adequately characterized during previous investigations and on going groundwater monitoring.

#### Revised CEA

The Geoprobe<sup>®</sup> investigation fairly defined the extent of the TCE plume along and downgradient of White Horse Pike. The TCE database and previous modeling can be used to define the boundaries of the CEA. Lenox will propose a modified CEA boundary and the requisite wells in a formal proposal to be submitted at a latter date.

# Remedial Alternatives Analysis

A remedial alternatives analysis (RAA) was performed to identify and screen potential remedial measures that might be appropriate in addressing the groundwater conditions characterized by the TCE plume delineation study and that satisfy the remedial action objectives (RAOs). The RAOs for this project are to: protect human health by ensuring that groundwater from the TCE plume is not being used as potable water; minimize environmental impacts; and achieve applicable groundwater standards to the extent technically and economically feasible.

Three technologies were evaluated as part of this RAA: in situ chemical treatment; in situ physical treatment; and extraction with ex situ physical treatment. Remedial technologies that were determined to be inappropriate in view of the physical and chemical characteristics of the site were not evaluated. Process options under each

#### **Gannett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

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technology were identified and evaluated based on effectiveness, implementability and cost, with the primary focus on probable effectiveness.

Remedial Technology: In Situ Chemical Treatment
Process Option: Enhanced Reductive Dechlorination (ERD)

#### Description

ERD is an in-situ technology that establishes a reducing environment in the aquifer. Under favorable conditions, chlorinated compounds can be transformed to inert byproducts as a result of reductive dechlorination or dehalogenation. ERD requires the injection of a highly biodegradable, soluble and colloidal organic carbon material (i.e. molasses, whey or vegetable oil) into the aquifer to initiate and support microbial biodegradation.

Reductive dechlorination involves the sequential removal and substitution of the chlorine atom with a hydrogen atom. The degradation sequence for TCE is presented below:

 $TCE \rightarrow DCE \rightarrow VC \rightarrow ethene \rightarrow ethane \rightarrow carbon dioxide and water.$ 

The later steps of this process, such as degradation of cis-1,2 DCE to VC, and VC to cthane, generally require much stronger reducing conditions than under the initial degradation sequence. The more highly chlorinated compounds are most susceptible to reductive dechlorination because of their higher state of oxidation.

#### **Effectiveness**

ERD may effectively reduce TCE concentrations in groundwater through reductive dechlorination. It is difficult, however, to monitor and control in situ chemical treatment systems. An extensive and long duration pilot test would be required to evaluate whether this technology could degrade the TCE and its breakdown products to the extent necessary to achieve groundwater standards.

# **Implementability**

The feasibility of using ERD to degrade the already low concentrations of TCE is not well documented. Frequent ERD injections at multiple locations may be required to ensure sufficient residency time due to the high transmissivity of the aquifer. Temporary injection points can be installed in public right-of-ways and/or on municipal properties under permit from the appropriate agencies. A permit from NJDEP would also be required to address the injection of the carbon source material into the underlying aquifer. Groundwater sampling would be required to monitor and track changes in TCE and

Mr. Frank Faranca New Jersey DEP March 14, 2003

- 5 -

associated breakdown product concentrations over time to determine whether complete degredation is achieved.

#### Costs

Capital costs are estimated at approximately \$160,000 per application, with annual O&M costs at approximately 35 percent of capital cost.

# Remedial Technology: In Situ Physical Treatment Process Option: Air Sparging - Single Well Design

#### Description

Air is injected into a double screened well, lifting the water in the well and forcing it out the upper screen. Simultaneously, water is drawn in the lower screen to replace the water discharged from the upper screen. Once in the well, the volatile organic compounds (VOCs) are transferred from the dissolved phase to the vapor phase by air bubbles. The contaminated air rises in the well to the water table, where vapors are drawn off and treated, if necessary, by a soil vapor extraction system.

#### <u>Effectiveness</u>

Under favorable conditions, air sparging is known to be effective in reducing TCE concentrations in groundwater. A pilot test would be required to determine the number and required spacing of the air sparging wells and to evaluate the need for subsequent vapor treatment.

## <u>Implementability</u>

Materials and contractors are readily available to install air sparging wells and associated equipment. The feasibility of using air sparging to further reduce the relatively low initial concentrations of TCE in the groundwater is not well documented. It is expected that a companion soil vapor extraction system would not be required due to the low levels of TCE in the groundwater. Remedial equipment can be installed in public right-of-ways and/or on municipal properties under permit from the appropriate agencies.

#### Costs

The design, capital and installation costs for air sparging wells and blowers are approximately \$55,000 per well, with annual O&M costs at approximately 40 percent of capital cost.

Mr. Frank Faranca New Jersey DEP March 14, 2003

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# Remedial Technology: Extraction with Ex Situ Physical Treatment Process Option: Groundwater Recovery with Granular Activated Carbon (GAC) Treatment

#### Description

This technology consists of pumping and extracting the contaminated groundwater to the surface, treating the water via GAC, and then discharging the treated effluent back to the underlying aquifer. Well formulas can be used to describe flow conditions, calculate

drawdown at the well(s), and calculate the radius of influence created by the system.

#### **Effectiveness**

Extraction wells and GAC treatment are proven technologies that can be used to remove VOCs from groundwater.

#### **Implementability**

Materials and contractors are readily available to install extraction wells and associated equipment. Hydrogeologic conditions near the Pomona facility are fairly well known, however, the effectiveness of extraction in reducing the already low concentrations of TCE is not well documented. Remedial equipment can be installed in public right-of-ways and/or on municipal properties under permit from the appropriate agencies. A permit from NJDEP would be required to recharge the treated groundwater to the underlying aquifer.

#### Costs

The design, capital and installation costs for extraction wells, pumps and recharge galleries are approximately \$70,000 per well, with annual O&M costs at approximately 35 percent of capital cost.

# **Detailed Analysis of Remedial Alternatives**

The remedial technologies and applicable process options were further screened and evaluated in terms of their ability to satisfy the following criteria:

- Overall Protection of Human Health and the Environment
- Long Term Effectiveness and Permanence
- Reduction of Toxicity, Mobility or Volume Through Treatment
- Short-Term Effectiveness
- Implementability

Mr. Frank Faranca New Jersey DEP March 14, 2003

-7-

Cost

# Overall Protection of Human Health and the Environment

This criterion is used to evaluate the degree to which unacceptable site risks are posed though the complete exposure pathways are eliminated, reduced or controlled by the remedial action. Public health risks posed by the TCE in groundwater have been addressed through interim remedial measures implemented by Lenox. Residences downgradient of the Lenox facility that are or might be in the immediate path of the TCE plume have been connected to the municipal water system or are monitored quarterly as part of a sampling program initiated by Lenox and coordinated with the Atlantic County Department of Public Health. In the event that the monitoring indicates the possibility of

TCE concentrations exceeding drinking water standards, the residence will be connected to the municipal supply or the well will be fitted with a point of entry treatment system. The groundwater extraction system currently operated and maintained by Lenox has effectively controlled the migration of and reduced the TCE mass in the main plume downgradient of the Pomona facility.

All of the remedial alternatives evaluated would satisfy the RAO of protecting human health and the environment because nearly all homeowners in the path of the TCE plume are connected to the municipal water supply system and Lenox monitors water quality conditions at the few remaining private potable wells downgradient of the Pomona facility. Each alternative would help control the further downgradient migration of TCE However it is not certain that they would further reduce the current TCE concentrations in groundwater.

# Long Term Effectiveness and Permanence

The evaluation against this criterion assesses the magnitude of risk posed by untreated waste or treatment residuals and the ability of controls to provide sufficient protection from hazardous residuals after remedial activities are complete. The groundwater recovery/GAC treatment and air sparging alternatives may be effective in the long term. Both alternatives use well-proven technologies and equipment that are readily available and easily maintained; however, the ability and reliability of these systems in effectively reducing the already extremely low concentrations of TCE in groundwater over the long term is uncertain and not well documented. Moreover, the effects of dilution will make system performance monitoring virtually impossible.

The ERD alternative may not effectively reduce the low concentrations of VOCs in groundwater. Similar to the other alternatives, the ability and reliability of this system in reducing the already extremely low concentrations of TCE in the groundwater is uncertain. It is more difficult to stimulate and sustain the microbial community under a

Mr. Frank Faranca New Jersey DEP March 14, 2003

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low concentration plume condition. Moreover, there is no guarantee that the site characteristics can or will support the full degredation sequence, and this could result in little or no net change in VOC mass over time.

The extent of public and the environmental risk, however, remains effectively unchanged whether or not the remedial measures are implemented. Groundwater users that are or could be in the track of the plume are either connected to the municipal water supply or are being monitored by Lenox and will be protected as necessary. Dilution, dispersion and natural attenuation will reduce the levels of TCE over time.

# Reduction of Toxicity, Mobility or Volume Through Treatment

The groundwater extraction/GAC treatment remedy would reduce the volume of VOCs in groundwater. Air sparging transfers the contaminant mass from one media (water) to another (air). It is not expected that a companion SVE system would be required due to

the extremely low concentration of TCE in the groundwater. If it is required, the VOC mass from the air stream would be transferred to a vapor phase carbon system. Tracking the effectiveness of these systems with any statistical confidence may be virtually impossible due to the initial low concentrations of TCE in the groundwater and the effects of dilution. ERD may reduce the volume of VOCs in groundwater, however, there is no way to say whether the full degredation sequence will be achieved before the fact. If the sequence is not completed, the remedy would not satisfy this criterion.

## Short-Term Effectiveness

None of the alternatives would pose a risk to the community during implementation. Groundwater users in the track of the plume are either connected to the municipal water supply or are being monitored by Lenox. Worker exposure to VOCs in groundwater during any excavation needed to construct or extend the water supply system would be addressed and controlled by a site-specific health and safety plan.

Site access agreements would be required to perform remedial activities on municipal properties and public right of ways. Permits from the municipal agencies and NJDEP would be necessary to cover the specific work activities (i.e. drilling in the public right of way) and environmental discharges (i.e. the discharge of treated groundwater to the underlying aquifer). Environmental impacts are not expected during the construction and implementation of the groundwater extraction and air sparging remedies. The ERD remedy may affect groundwater quality in the event that the degredation sequence is not completed.

The time frame to achieve the remedial objectives and the nature of the final outcome cannot be reasonably predicted. The mass of VOCs in the groundwater is extremely

Mr. Frank Faranca New Jersey DEP March 14, 2003

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small and the plume is diffuse in nature. The reliability of these systems to effectively reduce the already low concentrations of TCE in the groundwater is uncertain and not well documented.

#### **Implementability**

All of the remedial alternatives can be implemented using readily available materials and local contractors. The treatment systems would be installed in public right of ways and on municipal properties, which will require access agreements and/or easements from these agencies. Groundwater extraction/GAC treatment and air sparging are well proven technologies to remove VOCs at higher concentrations, however their ability and reliability in further reducing VOCs at extremely low concentrations is uncertain. It is difficult to monitor and control in situ chemical treatment technologies such as ERD, and there is no guarantee that the site conditions will support the full degredation of TCE or that the remedy can further reduce the already low TCE concentrations in groundwater.

Long term monitoring would be required to demonstrate the effectiveness of these remedies. The ability to generate reliable statistical indicators of system performance may be virtually impossible due to the initial low concentrations of TCE in the groundwater and the effects of dilution over time.

#### Cost

Capital and operation and maintenance costs based on a ten-year remediation period were developed for each remedial alternative. Each cost estimate is preceded by a description of the proposed remedy.

# Groundwater Extraction/GAC Treatment

This remedy would consist of installing two additional recovery wells along Atlantic Avenue and with a maximum pumping capacity of 50 gallons per minute per well. The wells would be connected to the existing liquid phase GAC treatment and effluent discharge system on the Lenox property. Only a minor change, if any, to the existing permit would be required.

Capital Cost - \$100,000

O&M Cost - \$70,000

Mr. Frank Faranca New Jersey DEP March 14, 2003

JUL 29 2003 13:15 FR

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#### Air Sparging

This remedy would consist of installing approximately three air sparge/circulation wells along White Horse Pike. An air blower and, if necessary, a vapor phase GAC treatment system would be housed in a shed placed on property owned by the local municipality.

Capital Cost - \$236,000

O&M Cost - \$749,000

#### **ERD**

The ERD remedy would consist of injecting an organic substrate material into the aquifer at approximately 40 locations along White Horse Pike. Multiple injections would be required over time to ensure that the reducing conditions created by the substrate are sustained and provide sufficient residence time to achieve the full degredation sequence.

Capital Cost - \$237,000

O&M Cost - \$670,000

#### Summary

Neither the traditional air sparging nor innovative ERD remedial technologies evaluated by this assessment would be appropriate to remediate TCE in groundwater along either the White Horse Pike or Atlantic Avenue. The effectiveness of each technology under the site specific conditions (i.e. extremely low initial concentration of TCE) is uncertain and not well documented. Monitoring system performance would be virtually impossible due to the low influent concentrations and effects of dilution and it would be impossible to establish a reliable and statistically robust demonstration of system performance. Moreover, the cost and effort required for active remediation using these technologies would be disproportionate to the negligible remedial benefit realized by these remedies. Clearly, the remedies are not cost effective and the anticipated remedial benefit afforded by each technology does not and cannot offset the economic burden or the uncertainty in achieving the remedial objectives.

In comparison, the pump and treat alternative offers a marginal increase in remedial benefit and overall effectiveness, provided that the system is installed closer to the plant property (i.e. along Atlantic Avenue) where the higher concentrations of TCE were found during the Geoprobe® investigation. This remedy also makes more financial sense, since the additional wells can be tied into the existing treatment system, minimizing the overall capital and long-term O&M costs. The pump and treat alternative can be installed and operational in a considerably shorter time frame and thus would more effectively

### **Connett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

- 11 -

minimize further downgradient migration of TCE beyond Atlantic Avenue while reducing the mass of TCE in groundwater. It should be understood that pumping these wells should rapidly deplete the mass of TCE in this location and therefore, alternative pumping schemes, including total well shutdown, will have to be discussed. Natural processes, including dilution from recharge, dispersion and diffusion, would be relied on to further reduce TCE concentrations in groundwater downgradient of Atlantic Avenue and beyond the effective capture of the proposed pump and treat system.

We would like to discuss the issues presented in this letter with you at your convenience. John Kinkela will call you to discuss a meeting date.

Very truly yours,

GANNETT FLEMING, INC.

James/M. Barish, CP

Project Manager/Senior Hydrogeologist

Attachments (2)

cc:

Lou Fantin John Kinkela Gary Berman

# LENOX CHINA POMONA, NEW JERSBY

TABLE I

# FIELD GC AND LABORATORY CONFIRMATION RESULTS

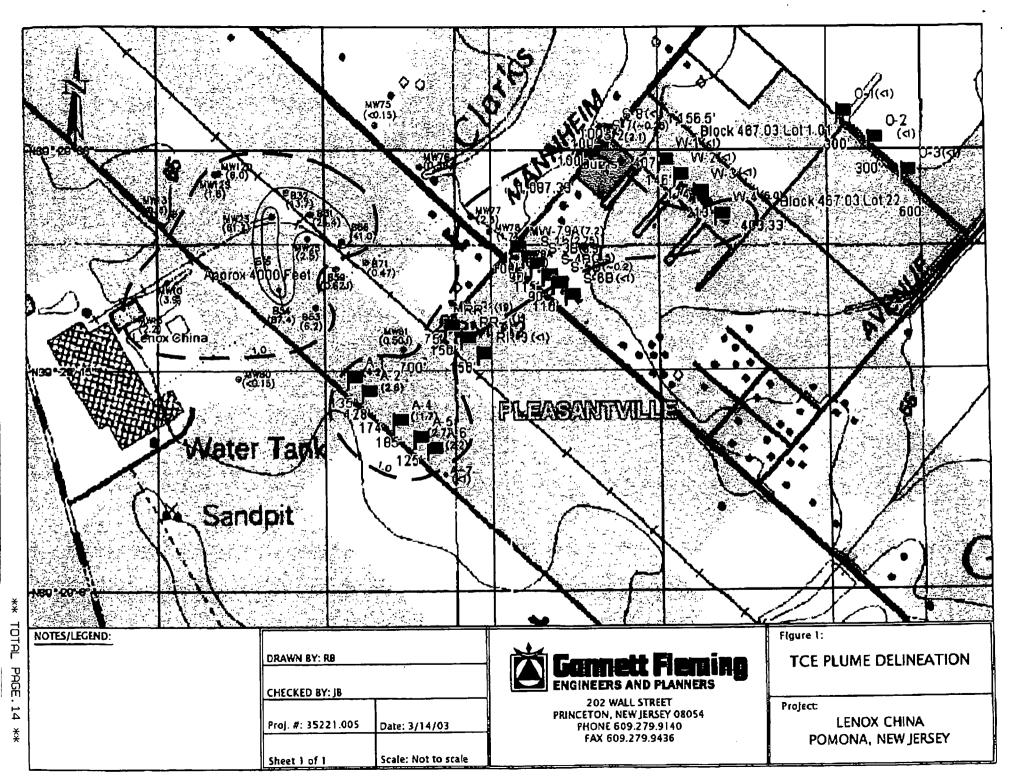
Sample ID	Location	Depth	Field GC	Lab
Whitehorse Pi	Whitehorse Pike Locations			
MW-79A		60-70	7.2	5.1
S-1A	100 ft east of -79A	50-52	<1	
S-1B	100 ft east of -79A	63-65	2.75	•••
S-3A	190 ft east of -79A	50-52	<1	
S-3B	190 ft east of -79A	63-65	3.5	1.1
S-4A	325 ft east of -79A	50-52	<1	
S-4B	325 ft east of -79A	63-65	3.5	
S-5A	415 ft east of -79A	50-52	<1	
S-5B	415 ft east of -79A	63-65	0.24	0.42
S-6A	555 ft east of -79A	50-52	<1	
S-6B	5.55 ft east of -79A	63-65	<1	<0.15
Mannheim Avenue Locations				
S-2A**	750 ft north of -79A	50-52	<l< td=""><td>&lt;0.15</td></l<>	<0.15
S-2B	750 ft north of -79A	63-65	2.1	
S-7A	850 ft north of -79A	63-65	0.25*	
S-8A	950 ft north of -79A	50-52	<1	
S-8B	950 ft north of -79A	63-65	<1	<0.15
Wooded Area - Harmony Avenue Locations				
W-1	410 ft south of Mannheim	63-65	<1	<0.15
W-2	535 ft south of Mannheim	63-65	<1	<0.15
W-3	730 (t south of Mannheim	63-65	<1	ļ '
W-4	940 (t south of Mannheim	63-65	6	

Sample ID	Location	Depth	Field GC	Lab
Atlastic Avenue				
RR-1	75 ft east of MW-81	63-65	19	
RR-2	225 ft east of MW-81	63-65	1 1	
RR-3	375 ft east of MW-81	63-65	<1	<0.15
Osborne Property	·			
0-1	600 ft north of Odessa	63-65	<1	0.4
0-2	900 ft north of Odessa	63-65	<li>&lt;1</li>	<0.15
0-3	1200 ft north of Odessa	63-65	<l< td=""><td>&lt;0.15</td></l<>	<0.15
Aloe Sireei			·	
A-1	265 ft north of Mannheim	50-52	8.6	
A-1	265 ft north of Mannheim	63-65	4.2	•
A-2	125 ft north of Mannheim	50-52	2.6	
A-3	Not Sampled	· ·	i	
A-4	175 ft south of Mannheim	40-42	<1	·
A-4	175 ft south of Mannheim	50-52	6.6	
A-4	175 ft south of Mannheim	63-65	11.7	
A-5	360 ft south of Mannheim	40-42	<1	
A-5	360 ft south of Mannheim	50-52	0.93	l
A-5	360 ft south of Mannheim	63-65	2.7	
A-6	485 ft south of Mannheim	50-52	<1	
A-6	485 ft south of Mannheim	63-65	2.2	
A-7	635 ft south of Mannheim	63-65	<1	0.6

# Notes:

All results are ug/I TCE

- \* Estimated value
  \*\* Midpoint of Burns' property
- --- Not analyzed



# N5DOOR 325074



**Andy Park** 

07/29/03 11:41 AM

To: Frank Faranca < Frank. Faranca@dep.state.nj.us>

cc:

Subject: Re: DRAFT Lenox Letter ■

Frank.

Based on the comments in the letter, the March 14, 2003 report appears to contain information that I may want to see. However, I have not received the document.

Andy

Andrew Park RCRA Programs Branch U.S. Environmental Protection Agency Region 2 290 Broadway, 22nd Fl. New York, New York 10007-1866 212-637-4184 park.andy@epa.gov

Frank Faranca < Frank. Faranca@dep.state.nj.us>



Frank Faranca <Frank.Faranca@dep. state.nj.us>

07/29/03 11:30 AM

To: Andy Park/R2/USEPA/US@EPA

CC

Subject: DRAFT Lenox Letter

Andy,
Are you OK with my draft letter? Please see attached. Thanks
Frank

Frank Faranca, Remedial Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028
Trenton, NJ 08625-0028

phone: 609-984-4071 fax: 609-633-1439

. 1437

e-mail: Frank.Faranca@dep.state.nj.us Geoprobe Report & RAA



Frank Faranca <Frank.Faranca@dep. state.nj.us>

cc: Subject: DRAFT Lenox Letter

To: Andy Park/R2/USEPA/US@EPA

07/29/03 11:30 AM

Andy,
Are you OK with my draft letter? Please see attached. Thanks
Frank

Frank Faranca, Remedial Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028

phone: 609-984-4071 fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us Geoprobe Report & RAA

July 29, 2003

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re: Lenox China Facility

Geoprobe Sampling Report and Remedial Alternative Analysis

Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received the above referenced document prepared by Gannett Fleming, Inc. on behalf of Lenox Incorporated, dated March 14, 2003. The regulatory agencies have determined that the report is approved with the incorporation of the following minor comments:

- 1. The report must include the dates when the geoprobe investigations were conducted.
- 2. Figure 1 (TCE Plume Delineation Map) is difficult to read. A revised, scaled map showing the geoprobe locations, sample ids and sampling results must be submitted.
- 3. The TCE plume boundaries as depicted in Figure 1 shows 2 separate TCE plumes. One plume is emanating from the Lenox China facility while the second plume is depicted as emanating downgradient from a sandpit area, which is offsite and to the southeast of the Lenox property. The figure also indicates that this second plume is the cause of the TCE impacts to the sentinel wells along Whitehorse Pike. This second plume is also downgradient of a 1-acre tract of land located directly south of the Lenox facility that was investigated by Lenox between 1996 and 1998. The soils at this south site location were found to contain material (i.e. broken china, plaster molds, black asphalt substance) from Lenox's manufacturing process. Soil and ground water investigations at the south site however did not reveal any VOC contamination. Lenox must provide comment on the possible source of this second plume.
- 4. Lenox's recommendation of additional recovery wells combined with natural remediation is conditionally acceptable to the Regulatory Agencies. In accordance with N.J.A.C. 7:26E-6.2 and 6.3 (d) and (e), Lenox will be required to submit a remedial action workplan for the pump-and-treat and natural remediation remedies.
- 5. The regulatory agencies defer comment on revisions to the CEA until Lenox submits a formal report.

Lenox shall submit their revision to the above referenced report within thirty (30) calendar days from receipt of this correspondence.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Remedial Project Manager Bureau of Case Management

C: Andrew Park, USEPA, Region II Daryl Clark, NJDEP/DPFSR/BGWPA James E. McGreevey

Governor

Department of Environmental Protection

Bradley M. Campbell Commissioner

August 6, 2003

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

Geoprobe Sampling Report and Remedial Alternative Analysis

Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received the above referenced document prepared by Gannett Fleming, Inc. on behalf of Lenox Incorporated, dated March 14, 2003. The regulatory agencies have determined that the report is approved with the incorporation of the following minor comments:

- 1. The report must include the dates when the geoprobe investigations were conducted.
- 2. Figure 1 (TCE Plume Delineation Map) is difficult to read. A revised, scaled map showing the geoprobe locations, sample ids and sampling results must be submitted.
- 3. The TCE plume boundaries as depicted in Figure 1 shows what appear to be 2 separate TCE plumes, one emanating from the Lenox China facility and a second plume appearing to emanate downgradient from a sandpit area. However, discussions with Lenox during an August 5, 2003 meeting, it was indicated that the second plume shown on the figure is not from a separate source, but is the result of a western portion of the Lenox plume separating from the main plume. It is believed to have occurred after the startup of the pump-and-treat system installed along Atlantic Avenue. The regulatory agencies accepts this conclusion, as previous investigations in the area of the sandpit revealed no soil or ground water contamination. However, as suggested by Department in the meeting, Lenox should consider installing a geoprobe upgradient and to the west-southwest of geoprobe location A-4 (i.e. near the K in the word tank on Figure 1 to confirm that their is no TCE contamination migrating from an upgradient source.
- 4. Lenox's recommendation of additional recovery wells combined with natural remediation is conditionally acceptable to the Regulatory Agencies. In accordance with N.J.A.C. 7:26E-6.2 and 6.3 (d) and (e), Lenox will be required to submit a remedial action workplan for the pump-and-treat and natural remediation remedies.

5. The regulatory agencies defer comment on revisions to the CEA until Lenox submits a formal report.

Lenox shall submit their revision to the above referenced report within thirty (30) calendar days from receipt of this correspondence.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Remedial Project Manager

Bureau of Case Management

C: Andrew Park, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA



August 15, 2003

# CERTIFIED MAIL - RETURN RECEIPT REQUESTED #7003 0500 0000 8538 9138

Ms. Dianne Zalaskus
Water Supply Element
New Jersey Department of Environmental Protection
401 E. State Street
CN426
5th Floor West
Trenton NJ 08625-0426

Re: Water Diversion Permit 2428P

TCE Plume Remediation System Lenox-China, Pomona, New Jersey

Dear Ms. Zalaskus:

This letter will confirm our telephone conversation on August 11, 2003 in regard to annual permit fees. Lenox is requesting that the permit status be switched to substantially undiminished recharge with no annual fee.

From the inception of this permit in 1992 through 2001, in excess of 95% of all water diverted was returned undiminished to the aquifer. However, the permit included provisions for use of the water for irrigation. During Summer 2002, due to the severe drought, the Blue Heron Golf Course adjacent to our property requested that the water be pumped into their ponds for irrigation versus using their deep wells. Lenox was able to oblige and supplied approximately 19.3% of its annual diversion, according to our quarterly reports. So far this year, Blue Heron has only used the water for six (6) days or about 2% of our annual diversion. In the latter part of Summer 2004, the diversion is expected to increase approximately 40% when two additional wells are installed and operated to expand our Trichloroethene (TCE) Plume remediation and recharge system. Accordingly, Lenox believes that greater than 95% of the annual diversion will continue to be returned undiminished to the aquifer, despite irrigation use from time to time by Blue Heron to reduce diversion from the deep aquifer using their own wells.

The six wells covered by the permit were installed to intercept the flow of groundwater from Lenox property, which had been determined to include a plume of TCE. The wells are located downgradient of property owned by Ole' Hansen and Sons, owners and operators of the Blue Heron Golf Club, under which the major portion of the plume was found. The water is diverted

from the upper aquifer, less than sixty feet (60') deep, across Hansen's property, treated in a granular activated carbon (GAC) system and recharged upgradient through a large leach field using perforated horizontal pipes approximately four feet (4') below the surface. Alternatively, the water can be diverted further upgradient to the golf course, across the street, for irrigation, as required by Hansen under our long-term contract.

It is not anticipated that other uses, by Lenox, included in the permit would significantly decrease the amount of water returned undiminished to the aguifer.

Please do not hesitate to call me if you have any questions or require additional information at (609) 965-8272 or FAX to (609) 965-8282.

Sincerely yours.

John F. Kinkela

Director of Environmental Engineering

JFK/jfk

Enclosures:

-Summary of Calendar Year 2002 Quarterly Diversion Reports

Cc w/o encls: M.E. Chinn L.A. Fantin

G.W. Berman

J. Barish

Mr. Andrew Park United States Environmental Protection Agency 26 Federal Plaza PO Box 415 New York, NY 10278

Mr. Frank Faranca Case Manager New Jersey Department of Environmental Protection (3 copies) Division of Responsible Party Site Remediation Bureau of Federal Case Management CN 028 401 E. state Street Trenton, NJ 08625-0028

# SUMMARY OF CALENDER YEAR 2002 QUARTERLY REPORTS

2002	DIVERSION	<b>GOLF COURSE</b>
JAN	8,145,312	0
FEB	10,051,600	0
MAR	11,024,685	0
APR	9,597,000	. 0
MAY	10,035,320	0
JUN	8,781,210	2,156,566
JÜL	10,434,414	8,751,432
AUG	10,845,288	9,096,058
SEP	10,532,100	2,457,490
OCT	11,012,719	1,065,747
NOV	10,416,480	0
DEC	10,746,770	. 0
	121,622,898	23,527,293
•	80.66%	19.34%
	Treated and	Irrigation
	Returned to	-

Surficial Aquifer



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540

Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

September 17, 2003 File #42429.001

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re:

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Gannett Fleming March 14 and August 29, 2003 Letter Reports

Lenox China, Pomona, New Jersey

Dear Mr. Faranca:

In response to your September 15 email to John Kinkela, I have enclosed an additional copy of our revised March 14 letter report and accompanying August 29, 2003 letter to NJDEP. I have also forwarded one copy each to Mr. Andrew Park at the USEPA.

Please call if you have any questions.

Very truly yours,

GANNETT FLEMING, INC.

James M. Barish, CPG

Project Manager/Senior Hydrogeologist

Encl.

cc:

Andrew Park

Lou Fantin (w/o encl.)

John Kinkela (w/o encl.)

Gary Berman (w/o encl.)



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540

Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

August 29, 2003 File #42429.001

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re:

Lenox China

Pomona, New Jersey

Dear Mr. Faranca:

On behalf of Lenox China, thank you for the opportunity to meet with you and Mr. Clark to discuss the Geoprobe® investigation findings and our proposed strategy to meet USEPA's CA750 Environmental Indicator benchmark. Based on NJDEP's August 6 letter to Lenox, it is our understanding that the Department and USEPA have jointly approved the remedial approach described in the March 14, 2003 Geoprobe® Sampling Report and Remedial Alternatives Analysis. As discussed at our August 5 meeting, Lenox intends to supplement and extend the existing groundwater recovery system with two additional extraction wells, which will be installed near the intersection of Mannheim Avenue and Atlantic Avenue. Hydraulic control of the TCE plume upgradient of the new extraction system is anticipated to be established by September 2004. The downgradient portion of the plume beyond the recovery system will be addressed through a revised Classification Exception Area and monitored natural attenuation. This letter responds to NJDEP's August 6 letter to Lenox and provides an initial schedule to implement the proposed remedy.

### NJDEP Comments 1 and 2

The enclosed March 14, 2003 Geoprobe® Sampling Report and Remedial Alternative Analysis was revised to include the dates on which the groundwater samples were collected. In addition, Figure 1 has been redrawn to more clearly show the sampling locations, sample identifications and the TCE sampling results.

# **Gannett Fleming**

Mr. Frank Faranca New Jersey DEP August 29, 2003

-2-

# NJDEP Comments 3, 4 and 5

Comments 3, 4 and 5 address additional field work and administrative requirements to support the remedial design and eventual revision to the Classification Exception Area. As discussed at the August 5 meeting and as more fully described below, the major tasks to be completed consist of preparing a Remedial Design Work Plan for NJDEP review and approval; performing additional Geoprobe® groundwater sampling; installing and operating the supplemental groundwater extraction system; and selecting final locations for new sentinel wells to characterize the revised Classification Exception Area.

### Remedial Action Work Plan

Lenox will prepare and submit to NJDEP a Remedial Action Work Plan that addresses the requirements described under N.J.A.C. 7:26E-6.2 and 6.3 (d) and (e), as referenced in NJDEP's August 6 letter. Certain components of the Plan (i.e. Health and Safety Plan; Groundwater Sampling and Analysis Plan; Quality Assurance/Quality Control Plan) have been previously prepared as part of other investigations at the Lenox property or to support the current groundwater monitoring program. As a result, Lenox does not intend to recreate or resubmit these documents in the Remedial Design Work Plan. Rather, the existing documents will be incorporated by reference to minimize redundancy.

# Geoprobe® Groundwater Sampling

Lenox will perform additional Geoprobe® groundwater sampling to support the remedial design and to assist in establishing the revised Classification Exception Area. In addition to the sampling described under Comment 4 in NJDEP's August 6 letter, Lenox intends to resample the RR-1 area, where the two new groundwater extraction wells will be installed. Lenox will sample the area northeast of W-4 to better characterize the downgradient extent of TCE, and the areas adjacent to sample locations S-8, O-3 and S-6 to establish suitable locations for the new sentinel wells.

Consistent with the previous investigation, the Geoprobe® sampling will focus on the interval immediately above the clay layer (approximately 65 to 70 feet below grade). Samples from a shallower zone will be taken in the area nearest the Lenox plant as indicated by the previous Geoprobe® samples A-1 through A-7. The samples will be analyzed for TCE in the field using a portable gas chromatograph, with a certain percentage of samples submitted to a fixed laboratory for confirmation purposes.

# **Connett Fleming**

Mr. Frank Faranca New Jersey DEP August 29, 2003

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# Supplemental Groundwater Extraction System

The existing groundwater recovery system will be expanded by installing two additional groundwater extraction wells in the area of sampling location RR-1. Each well will be installed and fitted with pumps similar to existing wells RW-2 through RW-7. Prior to operating the new extraction wells at full capacity, the wells will be pumped at a low rate (approximately five gallons per minute) and the effluent will be sampled and analyzed periodically for TCE. The pumpage will be temporarily stored in a tanker, then transported to the Lenox plant for processing through the GAC treatment system. Data from this work will be used to establish the initial TCE mass loading to be contributed by the new wells after the system is put into full operation. Moreover, the data will be used to determine whether the long-term efficacy of the system can be effectively demonstrated through sampling of the extraction well effluent.

# Revised Classification Exception Area

It is expected that four additional sentinel wells will be required to reestablish the CEA boundary based on the current plume configuration. The sentinel well locations will be established as part of the additional Geoprobe® sampling previously discussed. Lenox will submit the sampling findings to NJDEP as a separate report, which will include the applicable information required under N.J.A.C. 7:26E-8.

### Remedial Action Schedule

A generalized schedule for administrative and field activities associated with this project is provided below. A more detailed project schedule will be incorporated in the Remedial Action Design Work Plan.

- Submit draft Remedial Action Work Plan to NJDEP by mid November 2003
- Receive Department approval of the Remedial Action Work Plan by mid January 2004
- Perform additional Geoprobe® sampling in February and March 2004
- Provide Geoprobe® sampling data and proposed revision to CEA boundary to NJDEP by May 2004
- Install and operate supplemental groundwater extraction system by June 2004
- Install new sentinel wells in June and July 2004
- Submit final report to NJDEP by August 2004

# **Connett Fleming**

Mr. Frank Faranca New Jersey DEP August 29, 2003

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Please call John Kinkela of Lenox at (609) 965-8272 if you have any questions or require additional information.

Very truly yours,

GANNETT FLEMING, INC.

James M. Barish, CPG

Project/Manager/Senior Hydrogeologist

Enclosure

cc: L. Fantin

J. Kinkela

G. Berman



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540

Office: (609) 279-9140 Fax: (609) 279-9436 www.gannettfleming.com

March 14, 2003 (Revised August 29, 2003) File #35221.005

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re: Geoprobe Sampling Report and Proposed Classification

**Exception Area Revision** 

Lenox China, Pomona, New Jersey

Dear Mr. Faranca:

This letter summarizes the results of the Geoprobe<sup>®</sup> investigation performed by Gannett Fleming (GF) to reestablish the TCE Classification Exception Area (CEA) downgradient of the Lenox facility. The information discussed in this letter incorporates the data presented in our Geoprobe<sup>®</sup> Sampling Status Report, which was provided to NJDEP on December 16, 2002. A remedial alternatives analysis (RAA) was also performed as part of this work to identify and evaluate select remedial measures that might be appropriate in addressing the TCE-impacted groundwater in the area along White Horse Pike (Route 30). The RAA results are also presented in this letter.

# Geoprobe® Sampling Results

White Horse Pike, Mannheim Avenue and Harmony Avenue

Groundwater sampling was performed in accord with the June 12, 2002 plan prepared by GF and approved by NJDEP. The samples were collected on October 23, 24, 25 and 28, and November 19 through 21, 2002. At NJDEP's request, samples were collected at 50 to 52 feet below grade in addition to the originally proposed sampling depth of 63 to 65 feet below grade, to determine the vertical distribution of TCE at each location. Figure 1 shows the sampling locations relative to the Lenox plant. Table 1 summarizes and compares the TCE results obtained from the field gas chromatograph (GC) and the fixed

# . Connett Fleming

Mr. Frank Faranca New Jersey DEP March 14, 2003

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laboratory. As shown in Table 1, the agreement between the field GC and fixed laboratory data is sufficient to conclude that the field screening results are a reliable indicator of groundwater conditions.

Sampling began along White Horse Pike, approximately 100 feet east of well MW-79A, and proceeded to the east at roughly 100-foot intervals. The field screening data show TCE concentrations ranging from 2.75  $\mu$ g/l at S-1B to 3.5  $\mu$ g/l at S-3B and S-4B. The sample from S-5B contained TCE at an estimated concentration of 0.2  $\mu$ g/l, and the sample from S-6B did not contain TCE at a concentration exceeding the instrument detection limit. The shallow zone sampling results show that TCE was not detected in the 50 to 52 foot depth at any location.

The initial sampling point on Mannheim Avenue was established at the midpoint of the property owned by Samuel Burns, approximately 1,080 feet north of well MW-79A. Sampling proceeded north along Mannheim at approximately 100-foot intervals. TCE was detected in the samples from S-2B and -7B at 2.1  $\mu$ g/l and at an estimated concentration of 0.25  $\mu$ g/l, respectively. The sample from S-8B did not contain TCE at a concentration exceeding the instrument detection limit. The shallow zone sampling did not detect TCE in groundwater from the 50 to 52 foot depth at locations S-2 and -8. A shallow zone sample was not collected from location S-7 because NJDEP had approved GF's request to eliminate the shallow zone sampling from the monitoring program.

Four locations were selected along Harmony Avenue to establish the downgradient extent of the TCE plume. TCE was not detected in the first three samples east of Mannheim Avenue (W-1, -2 and -3) at a concentration exceeding the instrument detection limit. The sample from W-4 contained TCE at 6  $\mu$ g/l.

# Lot 467.03, Block 22 (Downgradient of Harmony Avenue)

Groundwater samples were collected on January 13 through 17, 2003 from three locations across Block 22 in a line perpendicular to Odessa Avenue. TCE was detected in the O-1 sample at 0.4  $\mu$ g/l. Samples O-2 and O-3 did not contain TCE at a concentration exceeding the laboratory reporting limit.

### Atlantic Avenue and Aloe Street

GF collected additional samples from nine locations along Atlantic Avenue and Aloe Street on January 13 through 17, 2003 to better establish the southern extent of the plume toward the plant property. The initial sampling location along Atlantic Avenue was established at RR-1, approximately 75 feet southeast of well MW-81, and the sampling proceeded at approximately 150-foot intervals parallel to the roadway. TCE was detected in samples RR-1 and -2 at 19  $\mu$ g/l and 1  $\mu$ g/l, respectively. The sample from RR-3 did not contain TCE at a concentration exceeding the instrument detection limit.

# **Connett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

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Groundwater samples were collected from six locations along Aloe Street, with A-1 and A-2 on the north side of Mannheim Avenue and A-3 through A-7 on the south side. Spacing between the sampling points was approximately 150 feet.

On the south side of Mannheim Avenue, samples were collected at 40 to 42, 50 to 52 and 63 to 65 feet below grade at locations A-4 and A-5 (It was not necessary to sample the A-3 location because the other sample points had already bracketed the TCE plume extension). TCE was not detected in the shallow zone samples at either location, but was found in the mid depth and deeper samples at  $6.6 \mu g/l$  and  $11.7 \mu g/l$  (A-4) and  $0.93 \mu g/l$  and  $2.7 \mu g/l$  (A-5). TCE was not detected in the mid sample from A-6, but was found in the deep zone sample at  $2.2 \mu g/l$  (a shallow zone sample was not collected from this location). The deep zone sample from A-7 did not contain TCE at a concentration exceeding the instrument detection limit and it was the only sample collected from this location. Samples A-1 (mid depth and deep zone samples) and A-2 (mid depth sample only) were collected on the north side of Mannheim Avenue. TCE was detected in both samples at  $8.6 \mu g/l$  and  $2.6 \mu g/l$ , respectively. No further sampling was performed north along Aloe Street because groundwater conditions in this area downgradient of the Lenox facility have been adequately characterized during previous investigations and on going groundwater monitoring.

# **Revised CEA**

The Geoprobe<sup>®</sup> investigation fairly defined the extent of the TCE plume along and downgradient of White Horse Pike. The TCE database and previous modeling can be used to define the boundaries of the CEA. Lenox will propose a modified CEA boundary and the requisite wells in a formal proposal to be submitted at a latter date.

### Remedial Alternatives Analysis

A remedial alternatives analysis (RAA) was performed to identify and screen potential remedial measures that might be appropriate in addressing the groundwater conditions characterized by the TCE plume delineation study and that satisfy the remedial action objectives (RAOs). The RAOs for this project are to: protect human health by ensuring that groundwater from the TCE plume is not being used as potable water; minimize environmental impacts; and achieve applicable groundwater standards to the extent technically and economically feasible.

Three technologies were evaluated as part of this RAA: in situ chemical treatment; in situ physical treatment; and extraction with ex situ physical treatment. Remedial technologies that were determined to be inappropriate in view of the physical and chemical characteristics of the site were not evaluated. Process options under each technology were identified and evaluated based on effectiveness, implementability and cost, with the primary focus on probable effectiveness.

### **Gannett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

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Remedial Technology: In Situ Chemical Treatment
Process Option: Enhanced Reductive Dechlorination (ERD)

# Description

ERD is an in-situ technology that establishes a reducing environment in the aquifer. Under favorable conditions, chlorinated compounds can be transformed to inert byproducts as a result of reductive dechlorination or dehalogenation. ERD requires the injection of a highly biodegradable, soluble and colloidal organic carbon material (i.e. molasses, whey or vegetable oil) into the aquifer to initiate and support microbial biodegradation.

Reductive dechlorination involves the sequential removal and substitution of the chlorine atom with a hydrogen atom. The degradation sequence for TCE is presented below:

 $TCE \rightarrow DCE \rightarrow VC \rightarrow ethene \rightarrow ethane \rightarrow carbon dioxide and water.$ 

The later steps of this process, such as degradation of cis-1,2 DCE to VC, and VC to ethane, generally require much stronger reducing conditions than under the initial degradation sequence. The more highly chlorinated compounds are most susceptible to reductive dechlorination because of their higher state of oxidation.

# **Effectiveness**

ERD may effectively reduce TCE concentrations in groundwater through reductive dechlorination. It is difficult, however, to monitor and control in situ chemical treatment systems. An extensive and long duration pilot test would be required to evaluate whether this technology could degrade the TCE and its breakdown products to the extent necessary to achieve groundwater standards.

### *Implementability*

The feasibility of using ERD to degrade the already low concentrations of TCE is not well documented. Frequent ERD injections at multiple locations may be required to ensure sufficient residency time due to the high transmissivity of the aquifer. Temporary injection points can be installed in public right-of-ways and/or on municipal properties under permit from the appropriate agencies. A permit from NJDEP would also be required to address the injection of the carbon source material into the underlying aquifer. Groundwater sampling would be required to monitor and track changes in TCE and associated breakdown product concentrations over time to determine whether complete degredation is achieved.

### Costs

Capital costs are estimated at approximately \$160,000 per application, with annual O&M

# **Gannett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

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costs at approximately 35 percent of capital cost.

Remedial Technology: In Situ Physical Treatment Process Option: Air Sparging – Single Well Design

# Description

Air is injected into a double screened well, lifting the water in the well and forcing it out the upper screen. Simultaneously, water is drawn in the lower screen to replace the water discharged from the upper screen. Once in the well, the volatile organic compounds (VOCs) are transferred from the dissolved phase to the vapor phase by air bubbles. The contaminated air rises in the well to the water table, where vapors are drawn off and treated, if necessary, by a soil vapor extraction system.

# **Effectiveness**

Under favorable conditions, air sparging is known to be effective in reducing TCE concentrations in groundwater. A pilot test would be required to determine the number and required spacing of the air sparging wells and to evaluate the need for subsequent vapor treatment.

# **Implementability**

Materials and contractors are readily available to install air sparging wells and associated equipment. The feasibility of using air sparging to further reduce the relatively low initial concentrations of TCE in the groundwater is not well documented. It is expected that a companion soil vapor extraction system would not be required due to the low levels of TCE in the groundwater. Remedial equipment can be installed in public right-of-ways and/or on municipal properties under permit from the appropriate agencies.

#### Costs

The design, capital and installation costs for air sparging wells and blowers are approximately \$55,000 per well, with annual O&M costs at approximately 40 percent of capital cost.

# **Cannett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

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# Remedial Technology: Extraction with Ex Situ Physical Treatment Process Option: Groundwater Recovery with Granular Activated Carbon (GAC) Treatment

# **Description**

This technology consists of pumping and extracting the contaminated groundwater to the surface, treating the water via GAC, and then discharging the treated effluent back to the underlying aquifer. Well formulas can be used to describe flow conditions, calculate

drawdown at the well(s), and calculate the radius of influence created by the system.

### **Effectiveness**

Extraction wells and GAC treatment are proven technologies that can be used to remove VOCs from groundwater.

# **Implementability**

Materials and contractors are readily available to install extraction wells and associated equipment. Hydrogeologic conditions near the Pomona facility are fairly well known, however, the effectiveness of extraction in reducing the already low concentrations of TCE is not well documented. Remedial equipment can be installed in public right-of-ways and/or on municipal properties under permit from the appropriate agencies. A permit from NJDEP would be required to recharge the treated groundwater to the underlying aquifer.

### Costs

The design, capital and installation costs for extraction wells, pumps and recharge galleries are approximately \$70,000 per well, with annual O&M costs at approximately 35 percent of capital cost.

### **Detailed Analysis of Remedial Alternatives**

The remedial technologies and applicable process options were further screened and evaluated in terms of their ability to satisfy the following criteria:

- Overall Protection of Human Health and the Environment
- Long Term Effectiveness and Permanence
- Reduction of Toxicity, Mobility or Volume Through Treatment
- Short-Term Effectiveness
- Implementability
- Cost

# **Cannett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

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# Overall Protection of Human Health and the Environment

This criterion is used to evaluate the degree to which unacceptable site risks are posed though the complete exposure pathways are eliminated, reduced or controlled by the remedial action. Public health risks posed by the TCE in groundwater have been addressed through interim remedial measures implemented by Lenox. Residences downgradient of the Lenox facility that are or might be in the immediate path of the TCE plume have been connected to the municipal water system or are monitored quarterly as part of a sampling program initiated by Lenox and coordinated with the Atlantic County Department of Public Health. In the event that the monitoring indicates the possibility of

TCE concentrations exceeding drinking water standards, the residence will be connected to the municipal supply or the well will be fitted with a point of entry treatment system. The groundwater extraction system currently operated and maintained by Lenox has effectively controlled the migration of and reduced the TCE mass in the main plume downgradient of the Pomona facility.

All of the remedial alternatives evaluated would satisfy the RAO of protecting human health and the environment because nearly all homeowners in the path of the TCE plume are connected to the municipal water supply system and Lenox monitors water quality conditions at the few remaining private potable wells downgradient of the Pomona facility. Each alternative would help control the further downgradient migration of TCE However it is not certain that they would further reduce the current TCE concentrations in groundwater.

# Long Term Effectiveness and Permanence

The evaluation against this criterion assesses the magnitude of risk posed by untreated waste or treatment residuals and the ability of controls to provide sufficient protection from hazardous residuals after remedial activities are complete. The groundwater recovery/GAC treatment and air sparging alternatives may be effective in the long term. Both alternatives use well-proven technologies and equipment that are readily available and easily maintained; however, the ability and reliability of these systems in effectively reducing the already extremely low concentrations of TCE in groundwater over the long term is uncertain and not well documented. Moreover, the effects of dilution will make system performance monitoring virtually impossible.

The ERD alternative may not effectively reduce the low concentrations of VOCs in groundwater. Similar to the other alternatives, the ability and reliability of this system in reducing the already extremely low concentrations of TCE in the groundwater is uncertain. It is more difficult to stimulate and sustain the microbial community under a low concentration plume condition. Moreover, there is no guarantee that the site characteristics can or will support the full degredation sequence, and this could result in little or no net change in VOC mass over time.

# **Gannett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

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The extent of public and the environmental risk, however, remains effectively unchanged whether or not the remedial measures are implemented. Groundwater users that are or could be in the track of the plume are either connected to the municipal water supply or are being monitored by Lenox and will be protected as necessary. Dilution, dispersion and natural attenuation will reduce the levels of TCE over time.

# Reduction of Toxicity, Mobility or Volume Through Treatment

The groundwater extraction/GAC treatment remedy would reduce the volume of VOCs in groundwater. Air sparging transfers the contaminant mass from one media (water) to another (air). It is not expected that a companion SVE system would be required due to

the extremely low concentration of TCE in the groundwater. If it is required, the VOC mass from the air stream would be transferred to a vapor phase carbon system. Tracking the effectiveness of these systems with any statistical confidence may be virtually impossible due to the initial low concentrations of TCE in the groundwater and the effects of dilution. ERD may reduce the volume of VOCs in groundwater, however, there is no way to say whether the full degredation sequence will be achieved before the fact. If the sequence is not completed, the remedy would not satisfy this criterion.

# **Short-Term Effectiveness**

None of the alternatives would pose a risk to the community during implementation. Groundwater users in the track of the plume are either connected to the municipal water supply or are being monitored by Lenox. Worker exposure to VOCs in groundwater during any excavation needed to construct or extend the water supply system would be addressed and controlled by a site-specific health and safety plan.

Site access agreements would be required to perform remedial activities on municipal properties and public right of ways. Permits from the municipal agencies and NJDEP would be necessary to cover the specific work activities (i.e. drilling in the public right of way) and environmental discharges (i.e. the discharge of treated groundwater to the underlying aquifer). Environmental impacts are not expected during the construction and implementation of the groundwater extraction and air sparging remedies. The ERD remedy may affect groundwater quality in the event that the degredation sequence is not completed.

The time frame to achieve the remedial objectives and the nature of the final outcome cannot be reasonably predicted. The mass of VOCs in the groundwater is extremely small and the plume is diffuse in nature. The reliability of these systems to effectively reduce the already low concentrations of TCE in the groundwater is uncertain and not well documented.

# **Gannett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

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# **Implementability**

All of the remedial alternatives can be implemented using readily available materials and local contractors. The treatment systems would be installed in public right of ways and on municipal properties, which will require access agreements and/or easements from these agencies. Groundwater extraction/GAC treatment and air sparging are well proven technologies to remove VOCs at higher concentrations, however their ability and reliability in further reducing VOCs at extremely low concentrations is uncertain. It is difficult to monitor and control in situ chemical treatment technologies such as ERD, and there is no guarantee that the site conditions will support the full degredation of TCE or that the remedy can further reduce the already low TCE concentrations in groundwater.

Long term monitoring would be required to demonstrate the effectiveness of these remedies. The ability to generate reliable statistical indicators of system performance may be virtually impossible due to the initial low concentrations of TCE in the groundwater and the effects of dilution over time.

### Cost

Capital and operation and maintenance costs based on a ten-year remediation period were developed for each remedial alternative. Each cost estimate is preceded by a description of the proposed remedy.

### Groundwater Extraction/GAC Treatment

This remedy would consist of installing two additional recovery wells along Atlantic Avenue and with a maximum pumping capacity of 50 gallons per minute per well. The wells would be connected to the existing liquid phase GAC treatment and effluent discharge system on the Lenox property. Only a minor change, if any, to the existing permit would be required.

Capital Cost - \$100,000

O&M Cost - \$70,000

### Air Sparging

This remedy would consist of installing approximately three air sparge/circulation wells along White Horse Pike. An air blower and, if necessary, a vapor phase GAC treatment system would be housed in a shed placed on property owned by the local municipality.

Capital Cost - \$236,000

O&M Cost - \$749,000

### **Connett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

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### **ERD**

The ERD remedy would consist of injecting an organic substrate material into the aquifer at approximately 40 locations along White Horse Pike. Multiple injections would be required over time to ensure that the reducing conditions created by the substrate are sustained and provide sufficient residence time to achieve the full degredation sequence.

Capital Cost - \$237,000

O&M Cost - \$670,000

# **Summary**

Neither the traditional air sparging nor innovative ERD remedial technologies evaluated by this assessment would be appropriate to remediate TCE in groundwater along either the White Horse Pike or Atlantic Avenue. The effectiveness of each technology under the site specific conditions (i.e. extremely low initial concentration of TCE) is uncertain and not well documented. Monitoring system performance would be virtually impossible due to the low influent concentrations and effects of dilution and it would be impossible to establish a reliable and statistically robust demonstration of system performance. Moreover, the cost and effort required for active remediation using these technologies would be disproportionate to the negligible remedial benefit realized by these remedies. Clearly, the remedies are not cost effective and the anticipated remedial benefit afforded by each technology does not and cannot offset the economic burden or the uncertainty in achieving the remedial objectives.

In comparison, the pump and treat alternative offers a marginal increase in remedial benefit and overall effectiveness, provided that the system is installed closer to the plant property (i.e. along Atlantic Avenue) where the higher concentrations of TCE were found during the Geoprobe investigation. This remedy also makes more financial sense, since the additional wells can be tied into the existing treatment system, minimizing the overall capital and long-term O&M costs. The pump and treat alternative can be installed and operational in a considerably shorter time frame and thus would more effectively minimize further downgradient migration of TCE beyond Atlantic Avenue while reducing the mass of TCE in groundwater. It should be understood that pumping these wells should rapidly deplete the mass of TCE in this location and therefore, alternative pumping schemes, including total well shutdown, will have to be discussed. Natural processes, including dilution from recharge, dispersion and diffusion, would be relied on to further reduce TCE concentrations in groundwater downgradient of Atlantic Avenue and beyond the effective capture of the proposed pump and treat system.

# **Connett Fleming**

Mr. Frank Faranca New Jersey DEP March 14, 2003

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We would like to discuss the issues presented in this letter with you at your convenience. John Kinkela will call you to discuss a meeting date.

Very truly yours,

GANNETT FLEMING, INC.

James M. Barish, CPG

Project Manager/Senior Hydrogeologist

Attachments (2)

cc: Lou Fantin

John Kinkela

Gary Berman

# LENOX CHINA POMONA, NEW JERSEY

TABLE 1

# FIELD GC AND LABORATORY CONFIRMATION RESULTS

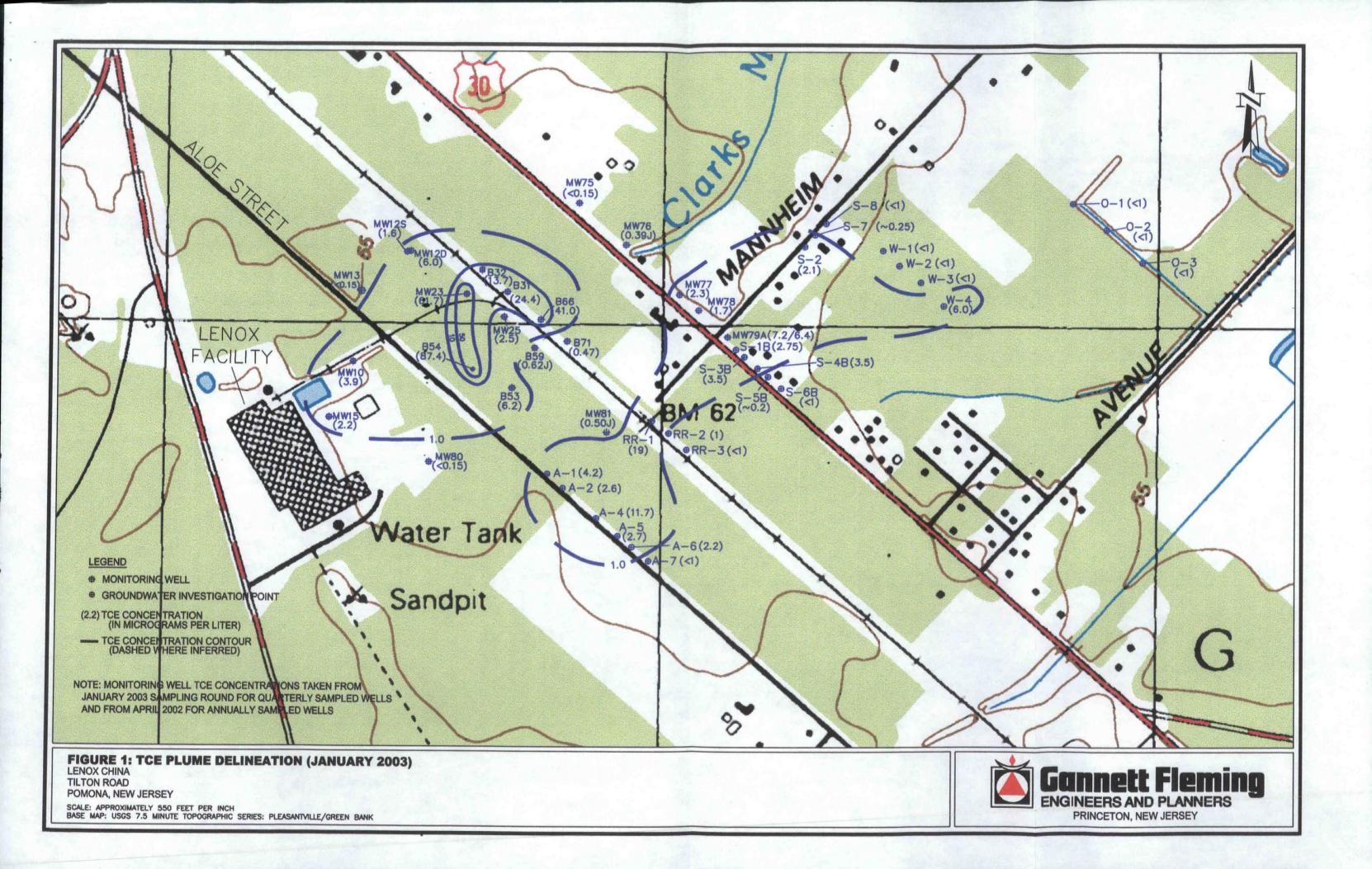
Sample ID	Location	Depth	Field GC	Lab
Whitehorse Pike	Whitehorse Pike Locations			
MW-79A		60-70	7.2	5.1
S-1A	100 ft east of -79A	50-52	<1	
S-1B	100 ft east of -79A	63-65	2.75	
S-3A	190 ft east of -79A	50-52	<1	
S-3B	190 ft east of -79A	63-65	3.5	1.1
S-4A	325 ft east of -79A	50-52	<1	
S-4B	325 ft east of -79A	63-65	3.5	
S-5A	415 ft east of -79A	50-52	<1	
S-5B	415 ft east of -79A	63-65	0.2*	0.42
S-6A	555 ft east of -79A	50-52	<1	
S-6B	555 ft east of -79A	63-65	< i	<0.15
Mannheim Aven	Mannheim Avenue Locations			
S-2A**	750 ft north of -79A	50-52	<1	<0.15
S-2B	750 ft north of -79A	63-65	2.1	
S-7A	850 ft north of -79A	63-65	0.25*	
S-8A	950 ft north of -79A	50-52	<1	
S-8B	950 ft north of -79A	63-65	<1	<0.15
Wooded Area - Harmony Avenue Locations				
W-1	410 ft south of Mannheim	63-65	<1	<0.15
W-2	535 ft south of Mannheim	63-65	<1	<0.15
W-3	730 ft south of Mannheim	63-65	<1	
W-4	940 ft south of Mannheim	63-65	6	

Sample ID	Location	Depth	Field GC	Lab	
Atlantic Avenue	Atlantic Avenue				
RR-1	75 ft east of MW-81	63-65	19		
RR-2	225 ft east of MW-81	63-65	1 1		
RR-3	375 ft east of MW-81	63-65	<1	< 0.15	
Osborne Property	Osborne Property				
O-1	600 ft north of Odessa	63-65	<1	0.4	
O-2	900 ft north of Odessa	63-65	<1	<0.15	
O-3	1200 ft north of Odessa	63-65	<1	<0.15	
Aloe Street					
A-1	265 ft north of Mannheim	50-52	8.6		
A-1	265 ft north of Mannheim	63-65	4.2		
A-2	125 ft north of Mannheim	50-52	2.6		
A-3	Not Sampled				
A-4	175 ft south of Mannheim	40-42	<1		
A-4	175 ft south of Mannheim	50-52	6.6		
A-4	175 ft south of Mannheim	63-65	11.7		
A-5	360 ft south of Mannheim	40-42	<1		
A-5	360 ft south of Mannheim	50-52	0.93	_	
A-5	360 ft south of Mannheim	63-65	2.7		
A-6	485 ft south of Mannheim	50-52	<1		
A-6	485 ft south of Mannheim	63-65	2.2		
A-7	635 ft south of Mannheim	63-65	<1	0.6	

### Notes:

All results are ug/l TCE

- \* Estimated value
- \*\* Midpoint of Burns' property
- --- Not analyzed





Frank Faranca <Frank.Faranca@dep. state.nj.us>

09/15/03 02:16 PM

To: John\_Kinkela@lenox.com

cc: Daryl Clark <a href="mailto:Daryl.Clark@dep.state.nj.us">Daryl.Clark@dep.state.nj.us</a>, Andy

Park/R2/USEPA/US@EPA

Subject: Extra Copy

### Hi John,

Can you please ask Gannett Fleming to send me 2 copies of all correspondences? Specifically I will need an extra copy of your August 29th letter which includes a revision to the March 14th letter. I have forwarded my copy directly to Daryl for review. Also, please copy Andy Park on these letters so that I can discuss the proposed work with EPA. Frank

Frank Faranca, Remedial Project Manager NJDEP/ Bureau of Case Management 401 East State Street P.O. Box 028 Trenton, NJ 08625-0028 phone: 609-984-4071

fax: 609-633-1439

e-mail: Frank.Faranca@dep.state.nj.us



August 29, 2003

UPS - Next Day Air Tracking # <u>J034 818 185 5</u>

Mr. Frank Faranca
Case Manager, Bureau of Publicly Funded Site Remediation
New Jersey Department of Environmental Protection
401 E. State Street
P.O. Box 028
Trenton NJ 08625-0028

Re: NJPDES - DGW Permit #0086487 Renewal Application

Lenox China, Pomona, New Jersey

Dear Mr. Faranca:

Lenox China is hereby submitting the attached renewal application for the TCE Plumes Remediation System. A number of items, which were either included in the original or the 1995 permit renewal application, have been referenced rather than resubmitted per the Site Remediation Program, NJPDES Discharge to Groundwater Permit Technical Manual. No changes were made with respect to the proposed supplemental expansion of the remediation system and Certification Exception Area, which we discussed in a meeting with you on August 6, 2003. Those items are being separately addressed in a response to your August 6, 2003 letter and a Remedial Action Workplan to be submitted to the Department by mid-November 2003.

Please do not hesitate to call me if you have any questions or require additional information at (609) 965-8272 or FAX to (609) 965-8282.

Sincerely yours

John F. Kinkela

Director of Environmental Engineering

JFK/jfk

Enclosures: - NJPDES - DGW Permit #0086487 Renewal Application

Cc w/o encls: M.E. Chinn

G.W. Berman J. Barish

Cc w/ encls: L.A. Fantin

Mr. Andrew Park

Environmental Engineer

United States Environmental Protection Agency

22nd Floor 290 Broadway

New York New York 10007-18615

# NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION SITE REMEDIATION PROGRAM (SRP) NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM (NJPDES)

# APPLICATION FOR NJPDES PERMIT - DISCHARGE TO GROUND WATER

# **PART I - FACILITY INFORMATION**

Note: The following is a condensation of the requirements of N.J.A.C. 7:14A-4. However, the Department may require any information identified therein to be submitted. If additional information is required for any question on this application, please attach supporting documentation (e.g., maps, documents referenced, additional pages, etc.). If such documentation has been previously submitted, identify the submission by name and date in the space provided.

1. APPLICANT(S)/OPERATOR		
Name Lenox China		<u> </u>
Permanent Legal Address <u>Tilton Road</u>	<del></del>	
City or Town Pomona	State NJ	Zip Code <u>08240</u>
Telephone (609) 965-8272  (e.g. ISRA Case #, BUST Case, e.g.		
2. CO-APPLICANT (if applicable)		
Name_N/A		
Permanent Legal Address		
City or Town	State	Zip Code
Telephone ( )		
3. PROPERTY OWNER(S)		
Name Lenox Incorporated d/b/a Lenox China		
Permanent Legal Address 100 Lenox Drive		
City or Town Lawrenceville	State NJ	Zip Code <u>08648</u>
Talanhana (600) 806 2800		

# 4. LOCATION OF ACTIVITY Name of Facility/Site Lenox China Street Address/Location 545 W. Tilton Road Lot No. 1 \_\_\_\_\_ Block No. 453 City or Town Pomona State NJ Zip Code 08240 Municipality Township of Galloway County Atlantic Facility (discharge): Latitude 39° 29' 18"; Longitude 74° 36' 05" The applicant is required to submit the following two maps: A site location map consisting of a 7.5 minute U.S.G.S. topographic sheet, extending one A) mile beyond the site boundaries, depicting the following: 1) site location, and 2) all sensitive receptors (e.g., potable wells, surface water bodies, etc.) within one-half mile of the facility; See Figure 1 A detailed site map that depicts the location(s) of 1) all discharges (e.g., injection wells, B) lagoons, etc.), 2) existing and proposed monitor wells, 3) existing and proposed recovery wells, and 4) all waste/hazardous constituent storage, treatment or disposal unit(s) See Figure 2 5. CONTACT PERSON (This person must be familiar with the facility/site) Name/Title John Kinkela \_\_\_\_\_ Telephone (609) 965-8272 Mailing Address (if different than 4 above) City or Town \_\_\_\_\_ State \_\_\_ Zip Code \_\_\_\_\_ 6. TYPE OF PERMIT APPLICATION (check all that apply): ( ) "K" - Underground Injection (UIC) (X) "K" - Covered Trench (X) With or () Without Laterals ( ) "J" - Surface Impoundment ( ) "I" - Infiltration - Percolation Lagoon ( ) "I" - Open Trench ( ) "H" - Overland Flow

( ) "G" - Spray Irrigation ( )"08" - Other:

Will the discharge be treated ground water only? (X) Yes; () No Give brief description of proposed discharge unit and specify the nature of the liquid(s) to be discharged instead of, or i addition to, treated ground water.
7. OTHER PERMITS
List other NJPDES permits issued at the site (list permit numbers and describe discharge; for renewal applications, give expiration date of existing permit) and any other permit relevant to proposed discharge.
NJPDES - DSW 0005177 (Tilton Rd. Pond); NJPDES - DGW 0070343 (Industrial Wastewater); HSWA 002325047; SIU NJ0133841; Pinelands Certification No 85-0666.05
8. LICENSED OPERATOR (Attach copy of certification and a list of facilities for which the person named is the licensed operator.) See Appendix B - Insert A
Name James Ennis
Company/Firm Lenox China
Address (Street/Road) Tilton Road
City or Town Pomona State NJ Zip Code 08240
Telephone (609) 965-8524
9. PROPERTY OWNER'S CERTIFICATION
I hereby certify that I, Lenox Incorporated
(Property Owner's Name) own the property identified in this application. As owner, I grant permission for the activity to be permitted under this application and authorize the DEP to conduct on-site inspections, if necessary.
In addition, I certify: (check yes or no)  Yes  No
A) The activity will take place in an easement?
B) Part of the entire project (pipeline, disposal area, wells, etc.) is or will be located within property owned by the State of New Jersey?

C) Part of the entire project is or will be located within property owned by a municipality or county? (If yes, contact the Green Acres Program at (609)588-3461 for an applicability determination)	Yes X	No
See attached copy of previous signatures – Appendix A  Signature of Owner and Date    Note: If "yes" to state applicant must provide obtaining permission for property owners	evidence	of
I certify, under penalty of law, that this document and all attachments were direction or supervision in accordance with a system designed to assure that properly gather and evaluate the information submitted. Based on my inquipersons who manage the system, or those directly responsible for gathering information submitted is, to the best of my knowledge and belief, true, accurant aware that there are significant civil and criminal penalties for submitting including the possibility of fine and imprisonment for purposely, knowingly negligently submitting false information.	t qualified iry of the past the informulate, and cong false informulate, and cong false informulate.	personnel person or nation, the complete. Formation,
Signature of Applicant/Operator and Date		<u></u>
Print or Type Name and Position  PART II - DESCRIPTION OF TREATMENT AND DISCHARGE		•
1. Briefly describe the proposed treatment system and its operation and attaschematic diagram of the complete treatment system.	ach a simpl	lified
See Appendix B – Insert A		

B

Burney Co

#± 4

1	ed within property owned	Yes	No
by a municipality or county? (If yes, contact t at (609)588-3461 for an applicability determine		<u>X</u>	
at (007)200 2 for 101 an approaching account			
	A manadir A		
See attached copy of previous signatures – A	Appendix A  {Note: If "yes" to state	ements A R	or C the
Signature of Owner and Date	applicant must provid		
	obtaining permission		
<del></del>	property owners}	mom the one	
	See Appendix A		
Print or Type Name and Position	_		·
First of Type Name and Position			
	TRA MOR		
10. CERTIFICATION BY APPLICANT/OPE	ERATOR		
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I certify, under penalty of law, that this docum	ient and an attachments wer	e prepared un	der my
direction or supervision in accordance with a s	system designed to assure th	at qualified p	ersonnel
properly gather and evaluate the information s	ubmitted. Based on my inqui	uiry of the pe	rson or
persons who manage the system, or those direct			
		G	
information automitted is to the hest of my line	oveledge and belief true acc	urate and co	
information submitted is, to the best of my kno	owledge and belief, true, acc	urate, and co	mplete.
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2. Describe the characteristics of the proposed discharge. This description should include, at a minimum: 1) proposed location(s), 2) construction details, 3) depth of discharge, 4) amount of discharge, 5) screened interval(s) if discharge is via injection well, and the rationale for design, including basis of design data (e.g. infiltration test data, slug test or pump test data, etc.). Attach schematic diagrams of the discharge unit(s).

See Appendix B – Insert B	<del></del>

3. Will the discharge be (X) within or () not within the capture zone of ground water recovery? (The restrictions on the system effluent will vary with respect to the location of the discharge relative to the ground water capture zone.) If the discharge is within the capture zone, provide a complete justification of this claim as an attachment to this application (include maps, models, etc.) Note: The NJPDES permit will require confirmation of discharge capture.

See Appendix C – Insert A

# PART III - MONITORING AND GROUND WATER QUALITY

1. Attach a list of influent and effluent compounds that exceed the higher of a) the Practical Quantitation Limit (PQL) or b) one-half the Ground Water Quality Criteria (GWQC)(N.J.A.C. 7:9-6 et. seq.). If the discharge is in the Pinelands, list those influent and effluent compounds that exceed the PQL. See Appendix C – Insert B

See also the most recent revision of the Groundwater Sampling and Analysis Plan, Lenox China, Pomona, New Jersey submitted to NJDEP.

- 2. If the discharge is not within a ground water capture zone, propose a monitoring plan to evaluate the effect of the discharge on ground water. <u>Note:</u> Please be advised that a more comprehensive ground water monitoring program may be required under the oversight document to evaluate the effectiveness of the ground water remediation. The monitoring plan shall include:
  - A) Frequency of sampling, parameters sampled, sampling and analytical methods;
  - B) The locations and construction characteristics of the monitoring wells; This explanation should identify (e.g., name, bedrock, unconsolidated, or glacial overburden) and describe (e.g., thickness, depth, texture, type, etc.) the formation(s) into which the discharge will occur. Justification of the proposed monitoring plan must be further substantiated with descriptions of site and regional hydrogeology (e.g., local and regional ground water flow direction(s), range of water table depths, confined or unconfined conditions, etc.). In addition, any special geological conditions should be described such as extensive bedrock fracturing and/or faulting, karst conditions, outcrops, etc. Include supporting documentation that contain ground water contour maps, well logs, geological maps and cross-sections, etc.

# PART IV - GROUND WATER USE AND SENSITIVE RECEPTORS

Appendix B – Inse	ert C	 		
		···		
		 	.,	

3. Attach a table (chart) that describes all other receptors located within one-half mile of the site. These receptors include: streams, rivers, ponds, and wetlands, etc.). The locations of these receptors must be depicted on a site location map. (See map requirements in PART I.) See Appendix B – Insert D

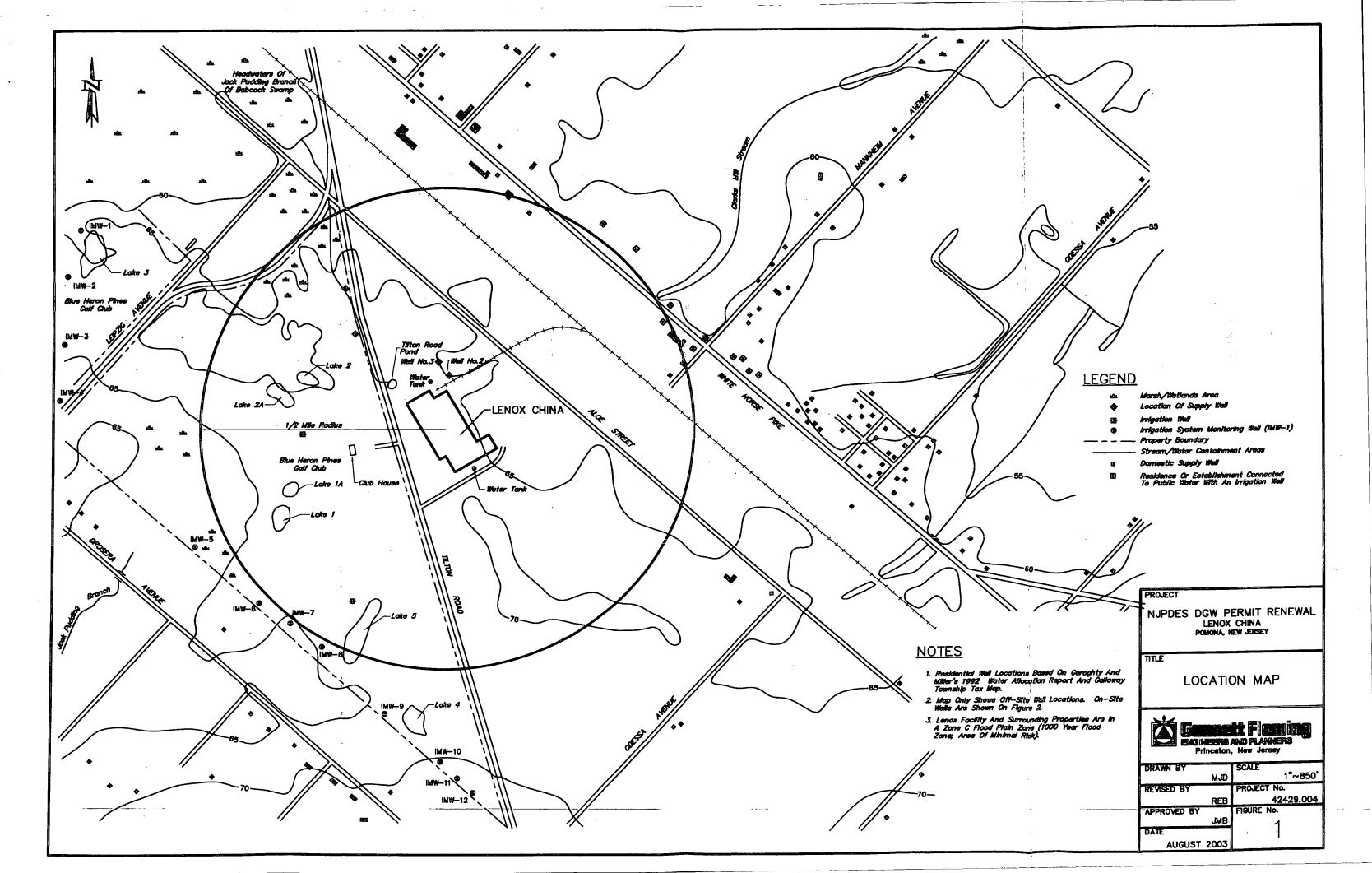
well, 3) screened interval, 4) use, and 5) volume if/when pumping. See Appendix B - Insert D

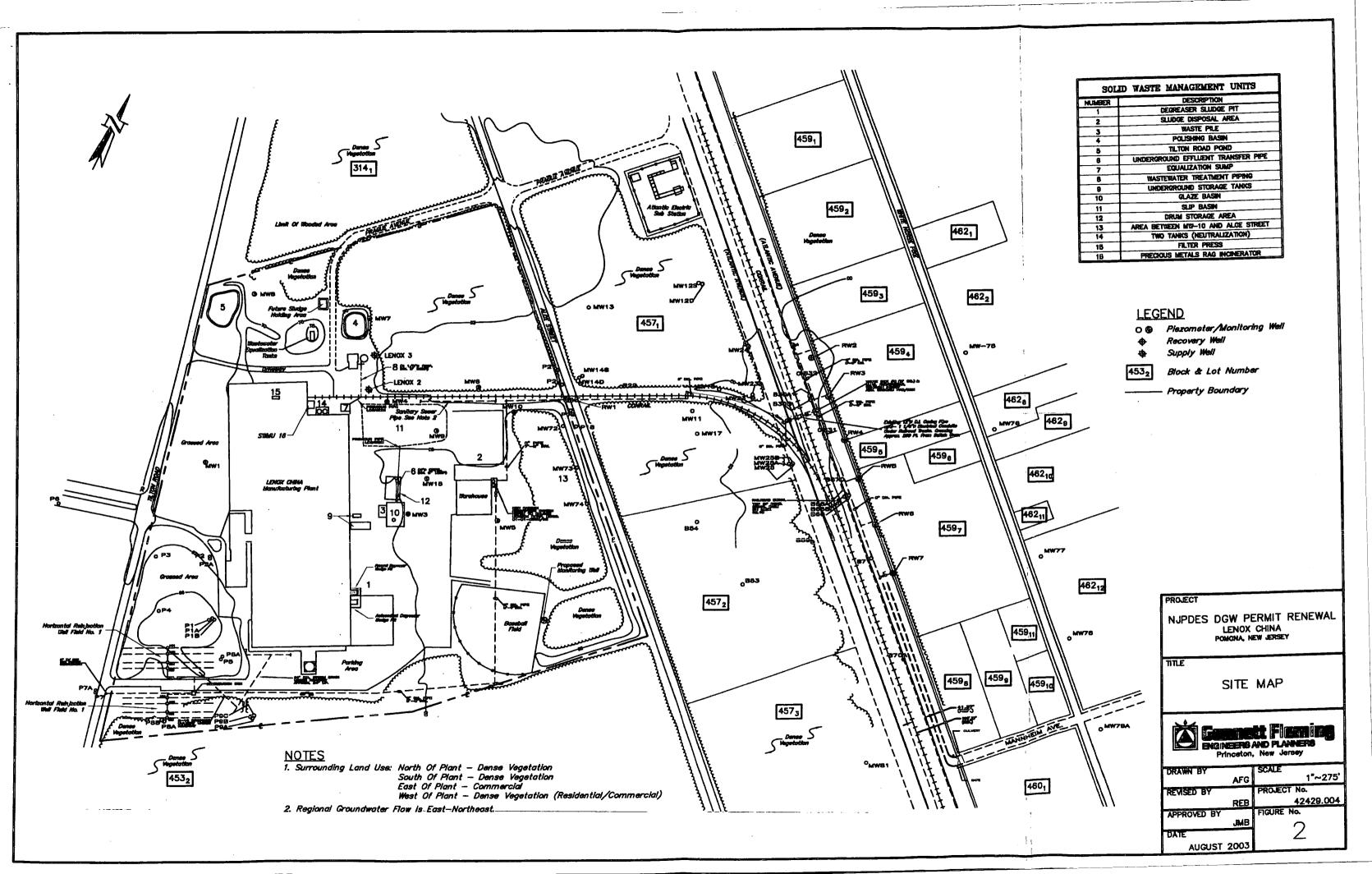
# PART V - SUBMISSION REQUIREMENTS

Notwithstanding the requirement at N.J.A.C. 7:14A-4.2(b), this completed application and any supporting documentation should be submitted to:

Mr. Frank Faranca
Bureau of Publicly Funded Site Remediation
DRPSR/SRP/NJDEP
P.O. Box 028
Trenton, NJ 08625

A copy of the application shall be sent to the municipality in which the facility is located and to the applicable sewerage authority.





ATLANTIC COUNTY DEPARTMENT OF REGIONAL PLANNING & DEVELOPMENT

Division of Engineering - 1333 Atlantic Avenue, 7th floor, Atlantic City, New Jersey 08401 (609) 345-6700

-APPLICATION FOR ROAD OPENING	PERMIT— PERMIT NO.: 336-91
-APPEROATION	MUNICIPALITY:
The required fee must accompany this application either by mo check payable to "Treasurer of Atlantic County". CASH NOT AC	COUNTY ROAD NO.:
Legox China	HOAD NAMED
Applicant Tilton Road, Pomona, N.J. 08240	FOREMAN LOCATION:
Mailing Address	PERMIT FEE
(600) (84 0709	REC'D. 5 4 C 70 O.
Telephone Number (609) 484-9798 To Open County Road (Road Name and Number) Aloe Street	Rt.686 CHECK NO. 70789.
In (City, Town, Township or Borough) Galloway	DATE RECEIVED:
AUGINE POSTER EXECUTE IS COLORED TO INTERPOLICIES DISCORDED ASSISTANCE IN THE PROPERTY OF THE	PERFORMANCE BOND
For Purpose Of Installing Remediation System power	er and water lines OTHER:
2° Depth Square	Yards CERTIFICATE OF INS.:
work will be Started On October 28, 1991 completed On Trench will be opened to install a 12	October 29, 1991 Inch diameter
sleeve. Power and water lines to be pulled	through later. FINAL RESTORATION:
—FEE SCHE	DULE - 66 10-31-91
TRENCH OPENINGS:	INSURANCE: Permittee must provide insurance in accordance to Section 8, Ordinance No. 22, 1984
Per Square Yard - \$2.00 Minimum Fee = \$40.00	
CURB. GUTTER & SIDEWALKS:	PERFORMANCE BOND (1)** Trench Openings:
0' - 100 L.F \$20.00 100' - 500 L.F \$50.00	0' - 4' Deep - \$47.00/Square Yard / MACLAS
500 ) F. and over - \$75.00+	4' - 8' Deep - \$60.00/Square Yard 6' and over - \$71.00/Square Yard
510.00 every 1000 L.F. thereafter DIRECT BURIAL CABLE:	Curb, Gutter and Sidewalk
g - 1500 L.F \$50.00	0' - 75' - No Bond Required 75' and over - \$15.00/Lineal Post
\$10.00 every 1000 L.F. thereafter: The fees apply to cables with a maximum width of 6"	MAINTENANCE BOND (2)**
in the shoulder. For greater widths, or trenches in paved area, trench fees apply.	Trench Openings: 0' - 4' Deep - \$47.00 Square Yard 4' - 8' Deep - \$60.00/Square Yard
POLE INSTALLATION:	8' and over - \$71.00/Square Yard B' and over - \$71.00/Square Yard Curb, Guttar and Sid-watt: Cr - 75' - No Bond Regulirehous County
No fees, however, drawings and permits are required.  No inspection fee will be charged.	0' - 75' - No Bond Require HISION OF ENGINEERING
INSPECTION: The County reserves the right to require inspection for all "BONDS: In lieu of performance/maintenance bonds, a certified check Planning Advisory Board will be accepted, however, maintenance bond NOTE: FEES ARE NOT REFUNDABLE	will be required upon completion of job.
The applicant agrees to comply with the regulations contained in the Ordinance grandinances and resolutions relating to said work and the acceptance of the permit	overning road and street openings in the County of Atlantic, as well as all laws, shall be deemed an agreement to abide by all of its terms and conditions.
Signed By Applicant Lohon F. Kinkela, Lenox Chin	a, Environmental Engineer
Print Or Type Marie	
You are hereby granted permission to make opening in County Road and	perform work and install facilities therein, in accordance with the plan
attached and regulations pertaining thereto.	1 4
- Stukact 11.1	Majay pare 10/30/91
COUNTY ENGINEER	FROM THE DATE OF ISSUANCE, WHICHEVER IS SOONER.
THIS PERMIT IS EFFECTIVE UNTIL OR 90 DAYS	THUM THE DATE OF ISSUANCE, WHICHETER TO SOUTH



February 4, 1991

Mr. John Kikela at Lenox China Technology Center 65 Fire Road Suite B-12 Absecon, NJ 08201

PERMIT P0101-4530-01

Dear Mr. Kikela:

Transmitted for your Information and use you will find a copy of the subject permit between the New Jersey Transit Corporation and Lenox China Technology Center for 6-inch watermain crossing.

Thank you for your cooperation.

Sincerely,

John Schem

Fiber Optic Specialist

**Enclosure** 

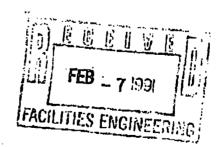
CC:

Charles P. Leo

Jim Minick/face sheet of permit

attached

JS/pm



April 1, 1991

Amtrek

PACSIMILE

Mr. John F. Kinkela Lenox Technical Center 65 Fire Road Abaccon, New Jersey 05201

Egg Harbor, New Jersey - Proposed 12" D.I.P. vicinity Mile Post 45.3 New Jersey Permit P0101-4530-01

# Dear Mr. Kinkelu:

We have received your letter of March 21, 1991, requesting authority to proceed with the above installation on April 9, 1991. This is your tentative approval, which will be confirmed upon our receipt of the following:

- Copy of the NJT permit. 1)
- Copies of all insurance documents. 2)
- Advance payment of the estimated \$2,800.00 of Autrak inspection/protection costs -- you will be billed actual 3) costs.
  - Flagmon A)

Three (3) Days

Inspector bi

- Three (3) Days
- Signed Maintainer c)
- One (1) Day

Field Engineer d)

One (1) Day 8 Days 6 \$350 = \$2,800

wery truly yours,

AREA CONSTRUCTION ENGINEER

נל: יענם



Consulting Engineers

# ALEXANDER M. CHURCHILL ASSOCIATES

Churchill Office Park Phone (809) 767-6901 344 South Route 73, Suite A

Berlin, New Jersey 08009

October 2, 1991

Mr. Joseph Picardi, Township Manager Galloway Township 300 E. Jimmie Leeds Road Galloway, NJ 08201

Lenox China Clearing of Atlantic Avenue Galloway Township, NJ Our File No. GT-27-91

Dear Joe:

At your request we met with John F. Kinkela, Environmental Engineer for Lenox on September 25, 1991. At that onsite meeting the applicant indicated that he intended to clear Atlantic Avenue which is presently a paper street that runs parallel with the railroad tracks and is located on the north side of the railroad tracks. The applicant proposes to use Mannheim Avenue as an access to the cleared portion of Atlantic Avenue. The applicant is clearing Atlantic Avenue to gain access to the area of the proposed wells they are required to install as part of ground water remediation project. required to install as part of ground water remediation project.

We recommend the following of the applicant as discussed at the onsite meeting.

- The Applicant is required to obtain any approvals needed for the clearing including pinelands.
- The Applicant is to install a gate at the end of Mannheim Avenue to limit 2. access onto Atlantic Avenue.
- The Applicant will install a concrete pipe in the existing ditch at the end of 3. Mannheim Avenue.
  - The Applicant is to leave a wooded buffer between the right of way of the railroad and the cleared portion of Atlantic Avenue.
  - If the Township ever improves Atlantic Avenue in this area, the Applicant is required to relocate any structures that would be located within the paved cartway.
  - We also recommend that the Applicant submit a plan indicating the proposed 6. well locations to our office for our file.

Engineering

Planning

Land Surveying

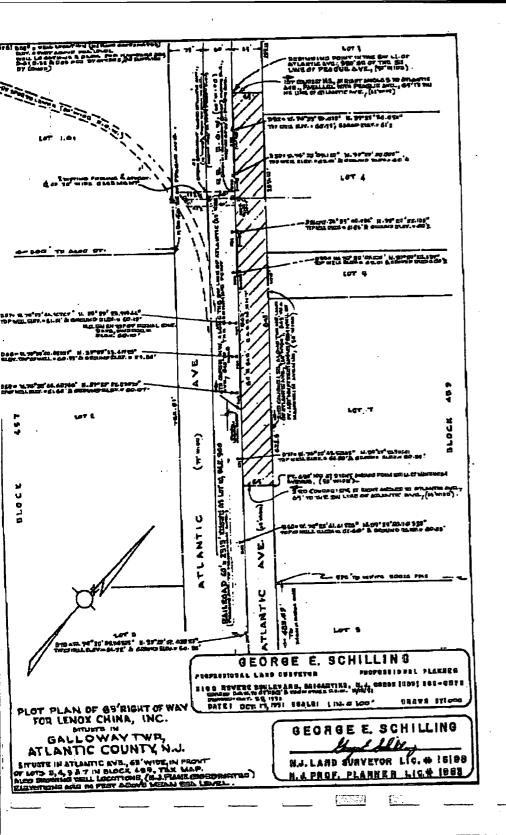
If you have any questions or require additional information, please feel free to contact our office.

Very truly yours,

ALEXANDER M. CHURCHILL ASSOCIATES

Alexander M. Churchill, P.E. & L.S. President

AMC:GAW:skc
cc: Mr. Erlin Perkins, Dir. of Public Works
Mr. John F. Kinkela, Environmental Engineer



# NJPDES DGW PERMIT APPLICATION

### APPENDIX B, INSERT A

A. The overall compliance program consists of the discharge of treated groundwater from the TCE remediation system and on-going detection monitoring at two closed RCRA units. TCE-contaminated groundwater is extracted by a line of six recovery wells. The water is conveyed to a dual vessel (in series) granulated activated carbon (GAC) unit via underground PVC piping. The treated groundwater is discharged to one of two recharge trench fields upgradient of the extraction wells. Discharge is alternated between the two fields to maintain recharge capacity. Design drawings are included in the Addendum to the August 1990 Groundwater Remediation Design Report (Eder Associates, October 1991) submitted to NJDEP. The NJDEP worksheet and certification form to determine licensed operator requirements and a copy of the current system operator license is attached.

The NJPDES-DGW monitoring program consists of sampling the treatment system influent and effluent, and sampling monitoring wells MW-1, MW-3 and MW-9 (See Appendix C, Insert C). Wells MW-3 and MW-9 are the downgradient compliance wells for the two closed RCRA units (Glaze Basin and Slip Basin).

# NJDEP SITE REMEDIATION PROGRAM (SRP) CLASSIFICATION OF GROUND WATER TREATMENT AND DISPOSAL SYSTEMS WORKSHEET LICENSED OPERATOR DETERMINATION FOR SRP DGW PERMITS

PRINT OR TYPE SRP LEAD BUREAU: Bureau of Publicly Funded Site Remediation

PRINT OR TYPE CASE MANAGER: Mr. Frank Faranca

NJPDES NO. <u>NJ0086487</u>	FACILIT	Y NAME: Lenox	China		
LOCATION: Tilton Road, Galloway Township, Pomona, Atlantic County					
FACILITY CLASS	N1	N2	N3	N4 70 and greater	NS Special/Limited
RANGE OF POINTS	6 to 19	20 to 49	50 to 69	/U and greater	Special Diffited

Facility Class NS = Gravity Oil Separation and/or Gravity Sedimentation

ITEMS	POL	VTS	ITEMS	POIN	NTS	
11 61419	Possible	Actual		Possible	Actual	
A. TOXICITY GROUP			E. SECONDARY (continued)			
All SRP Remediations are Group V.	20	20	Disinfection	2		
7 A. Dick Rosses			Spray Irrigation/Overland Flow	10	10	
B. RECEIVING WATERS (DGWs)			Oxidation ditches 10			
Ground Water	5	5	Other/Miscellaneous	#		
C. HYDRAULIC LOAD			F. ADVANCED			
Less than 0.1 MGD	2	2	Ammonia or Nutrient Removal	10 / 10		
0.1 to 1.0 MGD	4		Advanced Filtration	5		
1,0 to 10.0 MGD	6		Carbon Adsorption or Reverse Osmosis	10 / 10	10	
Greater than 10.0 MGD	10		Post Aeration	2		
D. PRIMARY			Ion exchange 10			
pH Adjustment or Equalization	1/1		Ultraviolet - Peroxide Reactor	5		
Oil Separator or Dissolved Air Flotation	3/3		G. SLUDGE HANDLING		_	
Chemical Coagulation / Flocculation	5		Digestion	5		
Sedimentation / Clarification	3		Sludge Conditioning or Composting	2/7		
Chemical Addition or Disinfection	2/2		Mechanical Dewatering	4	<del></del>	
Filtration / Simple (bag) Filters	5/2	2	Drying Beds or Lagoons	2	<del></del>	
Air Stripping	5		Thickening or Dissolved Air Flotation	3		
Other/Miscellaneous	#	<u> </u>	On-Site Landfill	2		
E. SECONDARY			Incineration/Wet oxidation 10		20	
Activated Sludge	15			Subtotal	20	
Biofiltration / Stabilization	10 / 5				40	
	Subtotal	29	GRANI	) TOTAL <sup>+</sup>	49	

<sup>+</sup>If unique treatment plant conditions exist, the Department may adjust the activity classification.

\*Mailing address of applicant if different from location address:

<sup>#</sup>Other/Miscellaneous Points to be determined by the Department after receipt of documentation detailing the system.

# DEPARTMENT OF ENVIRONMENTAL PROTECTION



STATE OF NEW JERSEY

Hereby Certifies the Goodstanding of:

JAMES ENNIS SSN:115-38-5998

License No. 0004427

Reg No.

AS A LICENSED:

N2 INDUSTRIAL

Expires: 09/30/03

Document#: **021148280** 

# Department of Environmental Protection of the State of New Jersey



This Certifies That

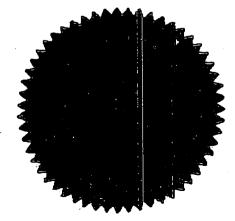
# JAHRS ENTIS

Has passed a satisfactory examination and is hereby authorized to operate a

II-2 IROUSTRIAL MASTERATE TRADEST STREET

In accordance with the classification prescribed on the annual license therefor.

Licenses are Renewable.



In Bitness Interest, I have hereunto set my hand and caused the Seal of the State Department of Environmental Protection to be affixed.

Ages &

Registory No. N. 1321
Transform, New Jersey

Sovember 29 19 91

Berrama

# NJPDES DGW PERMIT APPLICATION

### APPENDIX B, INSERT B

B. TCE contaminated groundwater is being remediated as described in Appendix B Insert A. Refer to the following reports and associated design drawings submitted to NJDEP:

### TCE REMEDIATION SYSTEM

- Groundwater Remediation Design Report, Lenox China Facility, Pomona, New Jersey
   (Eder Associates, August 1990)
- Groundwater Recharge Pilot Study Report, Lenox China Facility, Pomona, New Jersey (Eder Associates, August 1991)
- Technical Specification, Groundwater Remediation System (Eder Associates, September 1991)
- Addendum to the August 1990 Groundwater Remediation Design Report (Eder Associates, October 1991)

### **CLOSED RCRA UNITS**

 Reference NJDEP's September 14, 1990 letter to Mr. Stephen F. Lichtenstein, Esq. of Lenox, Inc. regarding closure of the Slip and Glaze basins.

# NJPDES DGW PERMIT APPLICATION APPENDIX B, INSERT C

C. The treated groundwater is discharged to the Cohansey Sand aquifer, which is classified by NJDEP as a Class I-PL aquifer. Groundwater downgradient of the Lenox facility is used as a potable water source. A municipal water supply was provided to some residences and commercial establishments. Private water supply wells at these locations are now used for non-potable purposes, such as residential lawn and garden watering and farm irrigation.

# NJPDES DGW PERMIT APPLICATION APPENDIX B, INSERT D

D. See the February 1992 Water Allocation Permit Application prepared by Geraghty & Miller and submitted to NJDEP.

Two supply wells have been installed on the Blue Heron Pines property since the Water Allocation Permit Application was prepared. These wells are shown on the Location Map (Figure 1).

### NJPDES DGW PERMIT APPLICATION

# APPENDIX C, INSERT A

A. The Lenox China groundwater remediation system was designed as a "closed loop" system so that the treated groundwater is discharged upgradient and within the capture zone of the recovery well network. The "closed loop" system is described in the Addendum to Summary Report of the Investigation of Trichloroethene in Groundwater and Proposed Groundwater Remedial System, Lenox China Facility and Adjacent Area, Pomona, New Jersey (Geraghty & Miller, September 1991) submitted to NJDEP. Groundwater elevation contour maps developed from depth to water measurements made during the quarterly TCE groundwater monitoring program also show that groundwater discharged to the recharge trench systems flows downgradient toward the recovery well system.

# NJPDES DGW PERMIT APPLICATION

# APPENDIX C, INSERT B

B. PQL exceedences have occurred for TCE, lead and zinc. TCE contaminated groundwater is being remediated as described in Appendix B Insert A. Lenox is conducting a statistical analysis program in accordance with a plan developed by Eder Associates (now Gannett Fleming) and approved by NJDEP to define a Classification Exception Area for lead and zinc.

# TCE REMEDIATION SYSTEM

The following parameters were found in the influent and/or effluent treatment system samples at concentrations exceeding the Practical Quantitation Limit (PQL) during the July 2003 monitoring round.

Parameter	Parameter Influent Effluent Concentration		PQL	
Trichloroethene	20.22	·	0.26	
Lead (unfiltered)	4 2		1	
Lead (filtered)	4	2	1	
Zinc (unfiltered)	40	90	10	
Zinc (filtered)		80	10	

Note: All concentrations in micrograms per liter (ug/l).

# Appendix C, Insert B, continued...

# **RCRA UNIT MONITORING**

The following parameters were found in groundwater samples at concentrations exceeding the Practical Quantitation Limit (PQL) during the July 2003 NJPDES DGW monitoring round.

Parameter	MW-1	MW-3	MW-9	PQL
Lead (unfiltered)	5.7	69.0		3.0
Lead (filtered)		44.6		3.0
Zinc (unfiltered)		3,810		20
Zinc (filtered)		3,840		20

Note: All concentrations in micrograms per liter (ug/l).



13A

Bradley M. Campbell Commissioner

James E. McGreevey
Governor

December 31, 2003

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

Remedial Action Work Plan

Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) have reviewed the above referenced document prepared by Gannett Fleming, Inc. on behalf of Lenox Incorporated, dated November 17, 2003. The regulatory agencies have determined that the work plan is acceptable with the following minor comments/questions, which may be submitted as an addendum to the work plan:

- 1. Please provide clarification regarding the first complete sentence on page 7 of the RAWP. The sentence states that the area northeast of geoprobe W-4 will be sampled to better characterize the area between Harmony Avenue and the "O" series of geoprobe points. Lenox shall clarify if geoprobe GP-5, located approximately 800 feet east-northeast of WP-4 is the sampling point that will be used for this characterization.
- 2. The second complete sentence on page 7 states that the area adjacent to previous sampling location O-3 will be sampled to identify a suitable location for a sentinel well. However, Figure 5 of the work plan does not show any sampling points proposed for this area. The proposed sampling locations must be provided on this figure. Please revise and resubmit.

Please respond within thirty (30) calendar days from receipt of this correspondence. Should you have any questions, please contact me at (609) 984-4071 (<u>frank.faranca@dep.state.nj.us</u>) or Shane Nelson at (212) 637-3130 (<u>Nelson.Shane@epamail.epa.gov</u>).

Sincerely

Frank Faranca, Remedial Project Manager

Bureau of Case Management

C: Shane Nelson, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA

N50002325074

**GANNETT FLEMING, INC.** 

Office: (609) 279-9140

Fax: (609) 279-9436 www.gannettfleming.com

Research Park 202 Wall Street Princeton, NJ 08540



January 19, 2004 File #42429.001

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor

CN 028

Trenton, New Jersey 08625-0028

Re:

Remedial Action Work Plan - Response to NJDEP Comments

Lenox China

Pomona, New Jersey

Dear Mr. Faranca:

This letter responds to the New Jersey Department of Environmental Protection (NJDEP) December 31, 2003 letter to Lenox Incorporated, which provided comments on Gannett Fleming's November 17, 2003 Remedial Action Work Plan (RAWP) for the Pomona, New Jersey facility. Comment No.1 requested clarification regarding the sampling location to be used to characterize the area between Harmony Avenue and the "O" series of Geoprobe<sup>TM</sup> sampling points. As indicated in NJDEP's letter, sample location GP-5 will be used for this purpose. With respect to Comment No. 2, Figure 5 in the work plan has been revised to show Geoprobe<sup>TM</sup> sample location GP-7, which will be used to confirm that the area adjacent to location O-3 is suitable for a new sentinel well. The revised figure is enclosed.

We will proceed with the field work phase of the project following NJDEP's written approval of the work plan. Please call John Kinkela of Lenox at (609) 965-8272 if you have any questions or require additional information.

Very truly yours,

GANNETT FLEMING, INC.

James M. Barish, CPG

Project Manager/Senior Hydrogeologist

Enclosure

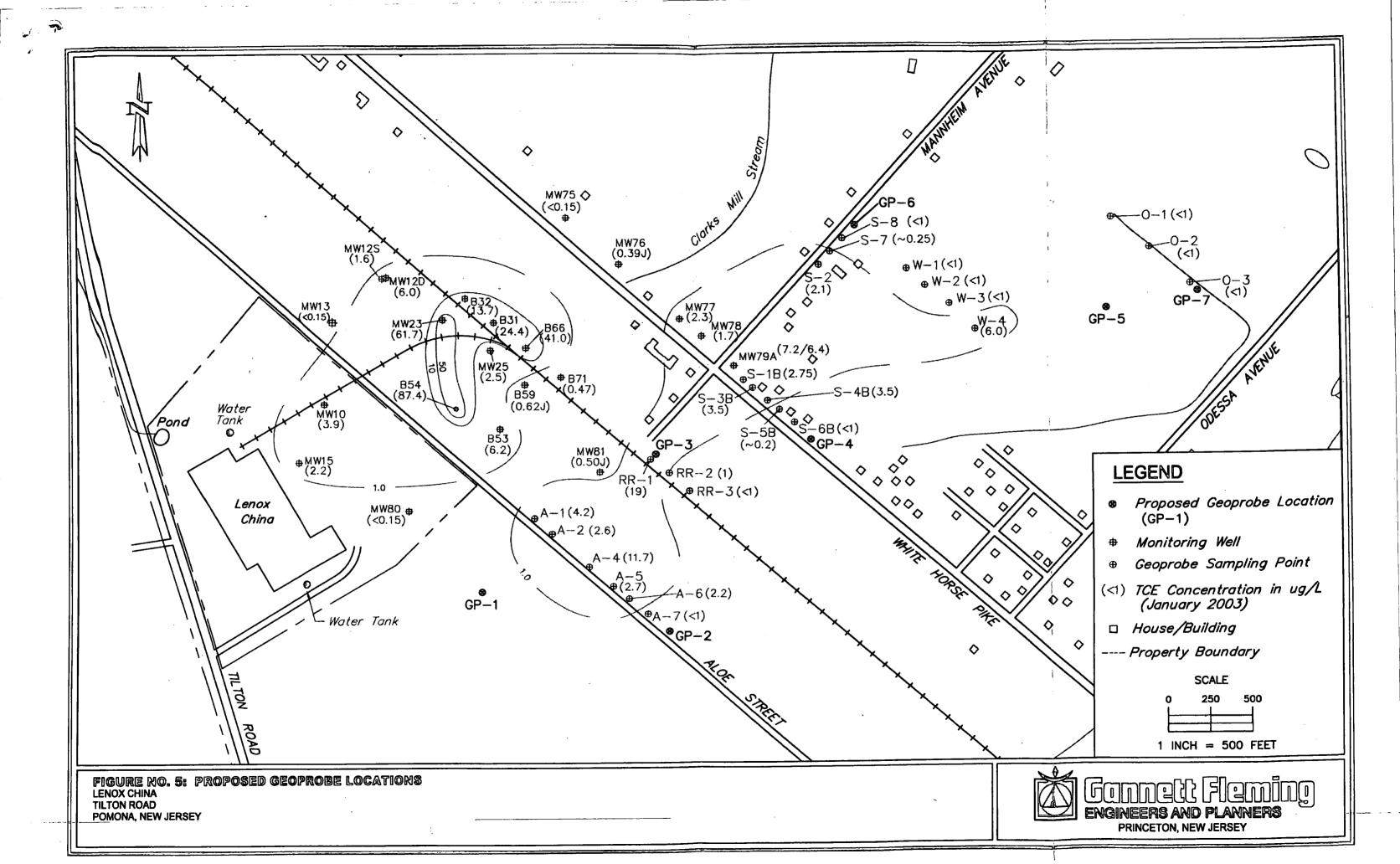
cc:

Shane Nelson, USEPA Louis Fantin, Lenox John Kinkela, Lenox

Gary Berman

5. Project/N. cocs.W2429/FCE Plante Delineation/RAWP/RAWP response01\_19\_04

A Tradition of Excellence





James E. McGreevey Governor

Department of Environmental Protection

Bradley M. Campbell Commissioner

March 23, 2004

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

NJPDES-DGW Permit #0086487 Renewal Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) prepared this letter in response to Lenox China's request for a renewal of their NJPDES-DGW permit, which expired on March 1, 2004. The permit regulates discharges to ground water that result from the pump-and-treat remedial action for ground water contaminated with trichloroethylene (TCE). The permit also regulates post-closure monitoring of the RCRA-regulated lagoons known as the glaze and slip basins.

Lenox is currently conducting additional remedial investigation and remedial action activities that will result in the installation of additional monitoring wells and recovery wells as part of the existing pump-and-treat remedy. Since much of the information that will be obtained will have to be included in the renewed permit, the Department recommends that the permit renewal be delayed until Lenox China has completed its additional RI/RA work. N.J.A.C. 7:14A-2.8(a) of the NJPDES regulations allows continuance of the expired permit until a renewal is completed.

The Department has reviewed the permit application and concludes that it will have to be revised. Specific comments are listed below.

# **Part I-Facility Information**

- 1. Under 4.B, Figure 2 would have to be updated to show the locations of the proposed monitoring wells and proposed recovery wells.
- 2. Under 6 (type of permit application), Lenox must also check "G"- spray irrigation and "08"-other.

# Part II-Description of Treatment and Discharge

- 1. Under 1, the description of the treatment system would have to be updated to include the additional proposed recovery wells.
- 2. Under 2, the description of the treated ground water discharge locations must include the irrigation ponds at the Blue Heron Pines Golf Course.

# Part IV-Ground Water Use and Sensitive Receptors

- 1. Under 2, Lenox did not submit a table or chart describing the wells as required. Lenox references a 1992 Water Allocations Permit (WAP) application as containing this information. The information regarding wells in the WAP is 12 years old. Lenox must provide updated information for this permit application.
- 2. Under 3, Lenox did not provide a table or chart describing all other non-well receptors as required.

Should you have any questions, please contact me at (609) 984-4071 (<u>frank.faranca@dep.state.nj.us</u>) or Shane Nelson at (212) 637-3130 (<u>Nelson.Shane@epamail.epa.gov</u>).

Sincerely,

Frank Faranca, Remedial Project Manager

Bureau of Case Management

C: Shane Nelson, USEPA, Region II Daryl Clark, NJDEP/DPFSR/BGWPA

NJD002325071

# State of New Jersey

James E. McGreevey
Governor

Department of Environmental Protection

Bradley M. Campbell Commissioner

February 3, 2004

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re: Le

Lenox China Facility

Remedial Action Work Plan - Response to Comments

Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) have reviewed the above referenced document prepared by Gannett Fleming, Inc. on behalf of Lenox Incorporated, dated January 19, 2004. The regulatory agencies have determined that the work plan is approved. Lenox shall begin the proposed work in accordance with the schedule contained therein.

Should you have any questions, please contact me at (609) 984-4071 (<u>frank.faranca@dep.state.nj.us</u>) or Shane Nelson at (212) 637-3130 (<u>Nelson.Shane@epamail.epa.gov</u>).

Sincerely,

Frank Faranca, Remedial Project Manager

Bureau of Case Management

C: Shane Nelson, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA

**GANNETT FLEMING, INC.** 

www.gannettfleming.com

Research Park 202 Wall Street Princeton, NJ 08540 Office: (609) 279-9140 Fax: (609) 279-9436



May 13, 2004 File #42429.001

Frank Faranca
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
401 East State Street, 5th Floor
CN 028
Trenton, New Jersey 08625-0028

Re: Geoprobe Sampling Results and Proposed

Sentinel Well Locations

Lenox China

Pomona, New Jersey

Dear Mr. Faranca:

I have enclosed a map summarizing the results from the most recent Geoprobe sampling program, which confirmed the locations of the four new sentinel wells and two additional recovery wells. Absent any comments from NJDEP or USEPA, Lenox intends to begin the well installation work by mid June.

Please call John Kinkela of Lenox at (609) 965-8272 if you have any questions or require additional information.

Very truly yours,

GANNETT FLEMING, INC.

Roby Berner

FURJames M. Barish, CPG

Project Manager/Senior Hydrogeologist

Attachment

cc: D. C

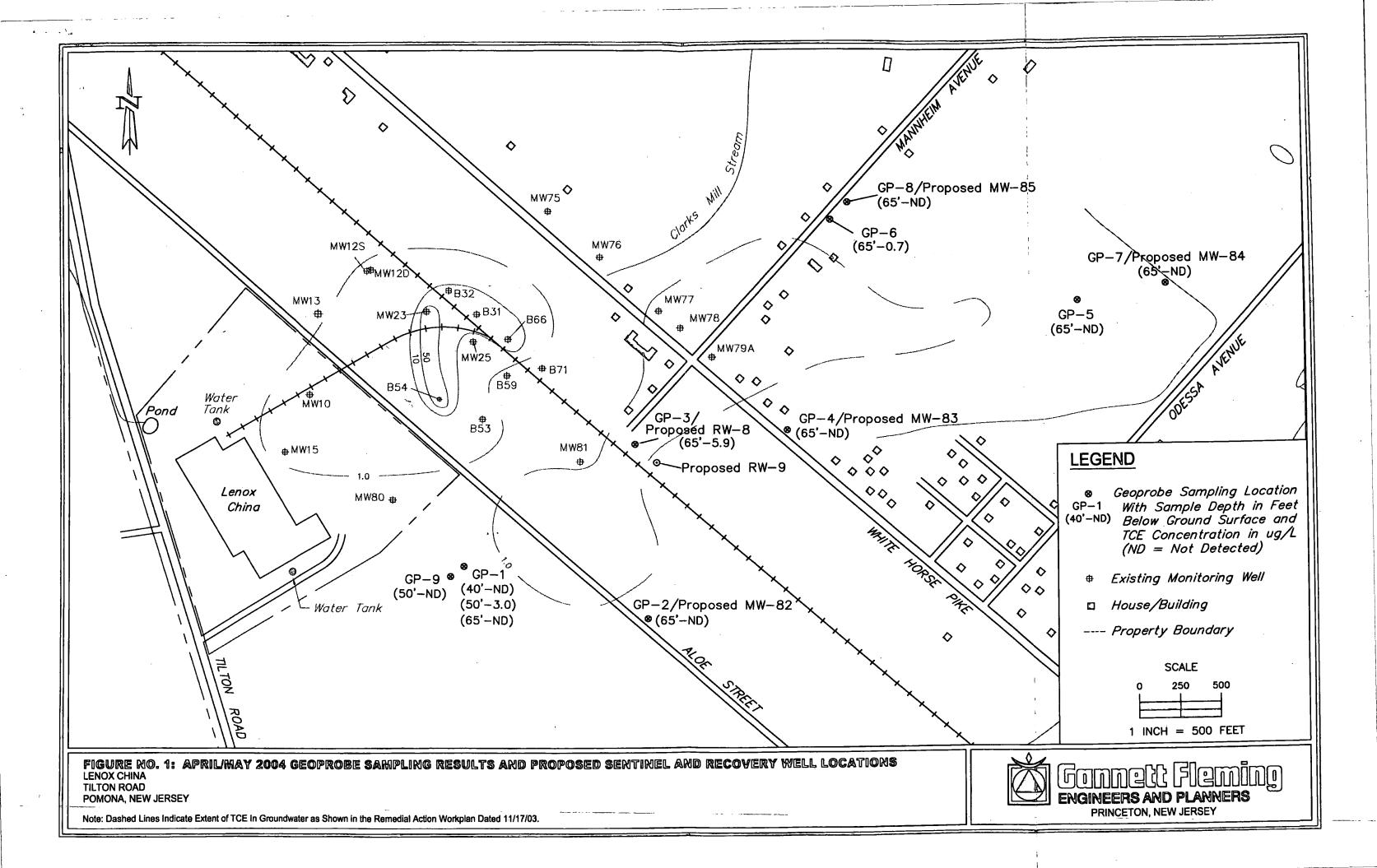
D. Clark, NJDEP

S. Nelson, USEPA

L. Fantin

J. Kinkela

G. Berman



OCT - 6, 2004

# <u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

Mr. Louis A. Fantin Vice President Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Re: Lenox Incorporated, Pomona, New Jersey

EPA ID No.: NJD002325074

#### Dear Mr. Fantin:

Pursuant to the Government Performance and Results Act (GPRA), the U.S. Environmental Protection Agency (EPA) Region 2 is required to establish a baseline of operating and closed treatment, storage and disposal facilities regulated under Subtitle C of the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments (HSWA). As you know, your facility is currently one of 1,714 facilities nationwide on the 2005 RCRA GPRA corrective action baseline. This is to inform you that your facility will remain in the GPRA RCRA corrective action baseline for 2008, which becomes effective October 1, 2005. We are now providing notification to you because the list will soon be made available to the public.

Although the New Jersey Department of Environmental Protection (NJDEP) will continue as the lead for corrective action at your facility, EPA is responsible for tracking progress with regard to remediation and/or compliance monitoring for determining the effectiveness of the chosen remedies or stabilization measures (hereinafter referred to as the "GPRA RCRA corrective action baseline" or "baseline"), and for reporting this progress to the public.



NJD002325074

# State of New Jersey

Richard J. Codey

Acting Governor

Department of Environmental Protection

Bradley M. Campbell Commissioner

April 19, 2005

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

Baseline Ecological Evaluation

Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (NJDEP) reviewed the above referenced report dated March 7, 2005. The NJDEP has determined that the report is approved with a few minor comments, which may be submitted as an addendum to the BEE:

The NJDEP reviewed the Ecological Assessment Checklist presented in Appendix A and has noted that questions 4, 8 and 9 of Part III (page 7) were either not answered or not completely answered.

• Specifically, question 4 was not answered at all.

• For question 8, the source of water to Tilton Road Pond is stormwater <u>and</u> industrial discharge (i.e. non-contact cooling water).

• For question #9, Lenox answered yes to the question of whether there is a discharge from the site to Tilton Road Pond; however, they do not describe the discharges and their path.

Please submit the addendum to the BEE within 7 calendar days from receipt of this correspondence. Lenox shall submit the limited Ecological Risk Assessment within 120 calendar days from receipt of this correspondence.

Should you have any questions, please contact me at (609) 984-4071 (frank.faranca@dep.state.nj.us).

Sincerely,

Frank Faranca, CHMM, Site Manager

Bureau of Case Management

C: Shane Nelson, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA

LENOX

NJD002325074

July 1, 2005

# CERTIFIED MAIL - RETURN RECEIPT REQUESTED #7004 2510 0007 1175 4989

Office of Enforcement Policy Land Use Enforcement 1510 Hooper Avenue Toms River, NJ 08753

Re: -Authorization for Freshwater Wetlannds Statewide General Permit, Water Quality Certification, Lenox China, File No: 0111-0400019.1, Pinelands Application No.:1985-06666.009, General Permit No.: 4

-Letter to Lenox China dated June 30, 2005 from New Jersey Pinelands Commission, same reference.

Dear: Sir or Madam:

This letter will serve as the official notification required in the referenced letter that Lenox China intends to commence the work authorized by the referenced permit on or about July 11, 2005. The work has been under contract for some time, all required permits have been obtained and time is of the essence. Today, Lenox informed the New Jersey Department of Environmental Protection and the United States Environmental Protection Agency, Region II that it will expedite the work required by the approved remedial action work plan so as to begin pumping water for remediation on or about July 31, 2005.

Please do not hesitate to call me if you have any questions concerning the above matter at (609) 965-8272 or documents may be sent by Facsimile to (609) 965-8282

Sincerely yours,

John Kinkela

Director of Environmental Engineering

JFK/jfk

Enclosures: -NONE

Cc w/o encls: L.A. Fantin

M.E. Chinn

G.W. Berman J. Barish

Mr. Shane Nelson Case Manager
United States Environmental Protection Agency
22nd Floor
290 Broadway
New York New York 10007-18615

Mr. Frank Faranca (3 copies)
Case Manager
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Federal Case Management
CN 028
401 E. state Street
Trenton, NJ 08625-0028



GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540 Office: (609) 279-9140 Fax: (609) 279-9436

www.gannettfleming.com

September 20, 2005 File #43840.020

Shane Nelson, CHMM RCRA Programs Branch Division of Environmental Planning & Protection U.S. EPA, Region 2 290 Broadway New York, NY 10007-1866

Re:

Lenox China

Pomona, New Jersey

Dear Mr. Nelson:

During the weeks of July 18 and 25, 2005 Lenox China installed two additional groundwater extraction wells to supplement its existing treatment system and four new sentinel wells downgradient of the Pomona, New Jersey facility. On August 18 the new extraction wells were put into full operation. Groundwater from the new sentinel wells was sampled on August 31 for volatile organic compounds analysis. The analytical data show that trichloroethylene (TCE) was not detected in any sentinel well sample at a concentration exceeding the laboratory reporting limit. These data demonstrate that Lenox China has achieved CA750 (Migration of Contaminated Groundwater Under Control) status under USEPA's RCRA Corrective Action Program. Provided below is a brief summary of the work that was performed to achieve this condition.

Geoprobe® Investigations - 2002 through 2005

A comprehensive series of groundwater investigations was performed downgradient of the Pomona facility in late 2002 and early 2003 to characterize the extent of TCE residuals in groundwater that were beyond the influence of the existing groundwater recovery system. Temporary monitoring wells were installed and sampled using a Geoprobe<sup>®</sup> and the samples were analyzed in the field using a portable gas chromatograph<sup>1</sup>. Based on this work, the approximate horizontal and vertical extent of the TCE residuals was established (Figure 1). Additional Geoprobe<sup>®</sup> samples were collected in 2004 and 2005 to confirm the earlier findings and the appropriateness of the new sentinel wells locations.

**Groundwater Extraction System Extension** 

Based on a review of the earlier Geoprobe<sup>®</sup> sampling results and the outcome of a Remedial Alternatives Analysis, Lenox determined that the most efficient and cost effective remedial action would be to expand its existing groundwater extraction and treatment system to address

<sup>&</sup>lt;sup>1</sup> Select samples were also analyzed at a fixed, NJDEP-certified laboratory to confirm the reliability of the field data.



# **Gannett Fleming**

Shane Nelson, CHMM U.S. EPA, Region 2 September 20, 2005

- 2 -

the portion of the TCE plume that was not being captured by the current system coupled with monitored natural attenuation of relatively dilute portions of the plume downgradient of the new extraction wells. This remedial strategy was presented to NJDEP in a letter from Gannett Fleming and approved by the Department on August 6, 2003.

Following an extensive delay caused by obtaining a permit required by the NJ Pinelands Commission for wetlands disturbance in the area of the new wells, the extraction wells (RW-8 and RW-9) were installed during the week of July 18, following confirmation Geoprobe sampling. The well locations are shown on Figure 1. Each new extraction well was constructed with a six inch diameter riser attached to 20 feet of stainless steel screen, consistent with the existing wells. The wells were set at approximately 65 feet below grade and fitted with submersible pumps capable of pumping 50 gallons per minute. The new wells were spaced approximately 175 feet apart, consistent with the spacing used for recovery wells RW-2 through RW-7.

# Sentinel Well Installation and Monitoring

Four new sentinel wells were installed at the locations shown on Figure 1 during the week of July 25. These wells were constructed with a two inch diameter riser attached to 10 feet of PVC well screen and set approximately 70 feet below grade. The wells were sampled for volatile organic compounds on August 31 in accordance with the protocols outlined in the Lenox monitoring plans approved by NJDEP. The laboratory data reports, which are included in Appendix A, show that TCE was not detected in any sample at a concentration exceeding the laboratory reporting limit.

### **Groundwater Monitoring Program**

S:\CLERICAL\Projects\Lenox\mc0090.doc

The routine quarterly groundwater sampling and analysis monitoring program (GWSAP) covered by the Memorandum of Agreement (MOA) between Lenox and NJDEP will be amended to incorporate the new sentinel wells. The next monitoring round is scheduled for October 2005.

TCE residuals that are between the sentinel wells and downgradient of the groundwater extraction system will be addressed through monitored natural attenuation (MNA) as described in the Remedial Action Work Plan approved by NJDEP. As discussed in the work plan, the results of over ten years of groundwater monitoring and other supplemental groundwater investigations have shown that TCE concentrations along and downgradient of White Horse Pike have been, and continue to be, in the single digit part per billion level. It is expected that TCE concentrations in this area will decrease over time to levels less than the applicable groundwater quality criteria (GWQC) through several mechanisms, including the affect of the new extraction wells on groundwater quality near the southeast intersection of Mannheim Avenue and Atlantic Avenue, and the physical characteristics of the aquifer, such as advection and dispersion. Calculated groundwater velocities under non-pumping conditions at the plant property have been

# **Gannett Fleming**

Shane Nelson, CHMM U.S. EPA, Region 2 September 20, 2005

- 3 -

estimated at 0.25 ft/day to 0.5 ft/day, more than sufficient to support and enhance mechanical dispersion of a plume that is downgradient of an active recovery system.

Although groundwater monitoring at and downgradient of the Lenox facility has also indicated that dissolved oxygen concentrations are sufficient to support biodegredation processes, the low pH of the aquifer does not sustain the type or level of microbiological activity necessary to biodegrade the organic material. The lack of TCE breakdown products, even in the areas on the Lenox property where TCE concentrations are several times greater than the levels found in and around White Horse Pike, validates this conclusion.

The current groundwater monitoring network and sampling program are appropriate to track the effectiveness of the MNA strategy. The need for any further actions will be evaluated over the long term as part of the quarterly groundwater monitoring program.

Please call if you have any questions.

Sincerely,

GANNETT FLEMING, INC.

James M. Barish, CPG

Project Manager/Senior Hydrogeologist

Attachment

cc:

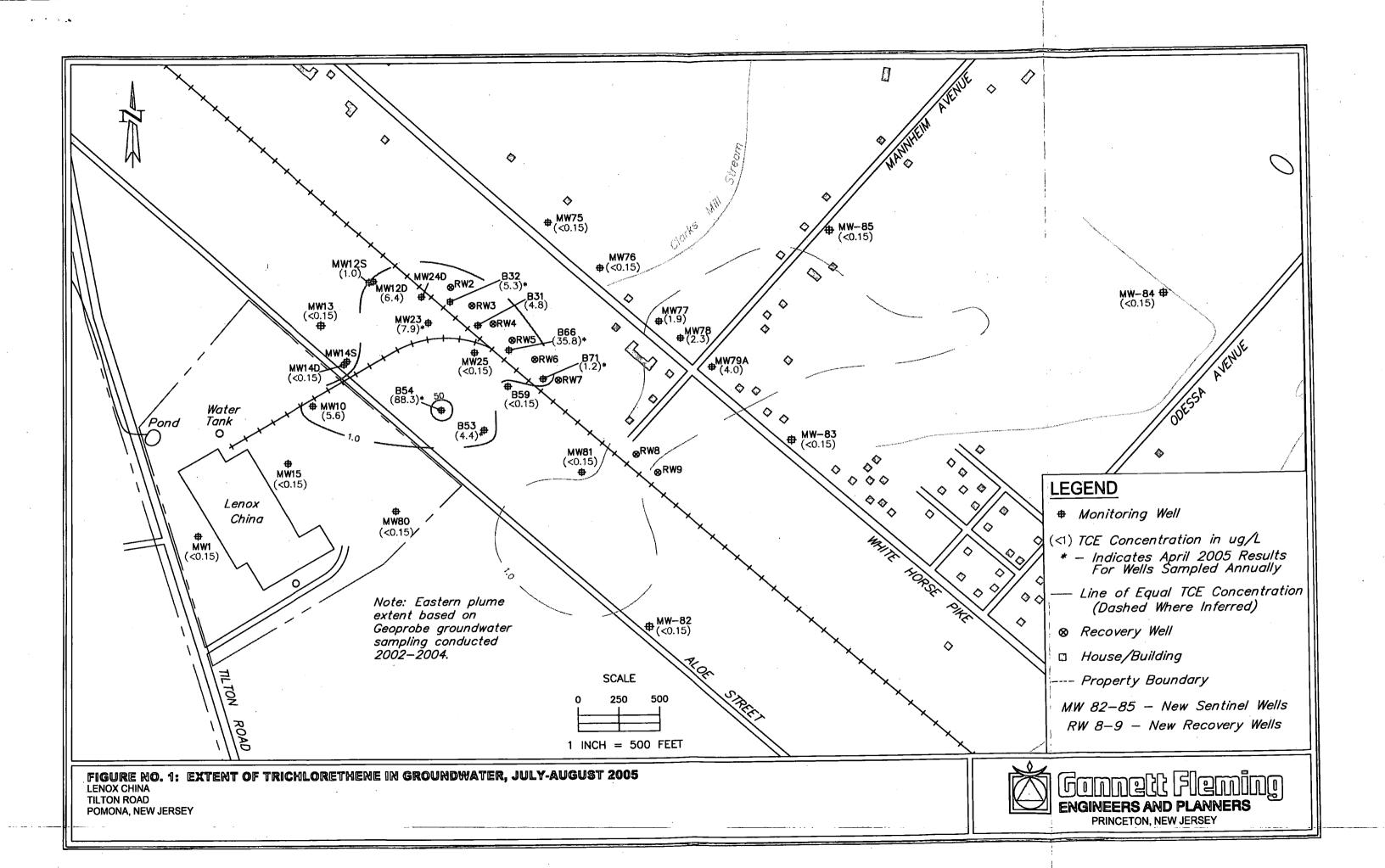
F. Faranca, NJDEP

D. Clark, NJDEP

L. Fantin, Lenox

J. Kinkela, Lenox

G. Berman





GANNETT FLEMING, INC. Research Park 202 Wall Street Princeton, NJ 08540 Office: (609) 279-9140 Fax: (609) 279-9436

www.gannettfleming.com

September 20, 2005 File #43840.020

Shane Nelson, CHMM RCRA Programs Branch Division of Environmental Planning & Protection U.S. EPA, Region 2 290 Broadway New York, NY 10007-1866

Re:

Lenox China

Pomona, New Jersey

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# **Gannett Fleming**

Shane Nelson, CHMM U.S. EPA, Region 2 September 20, 2005

- 2 -

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# **Gannett Fleming**

Shane Nelson, CHMM U.S. EPA, Region 2 September 20, 2005

- 3 -

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The current groundwater monitoring network and sampling program are appropriate to track the effectiveness of the MNA strategy. The need for any further actions will be evaluated over the long term as part of the quarterly groundwater monitoring program.

Please call if you have any questions.

Sincerely,

GANNETT FLEMING, INC.

James M. Barish, CPG

Project Manager/Senior Hydrogeologist

Attachment

cc:

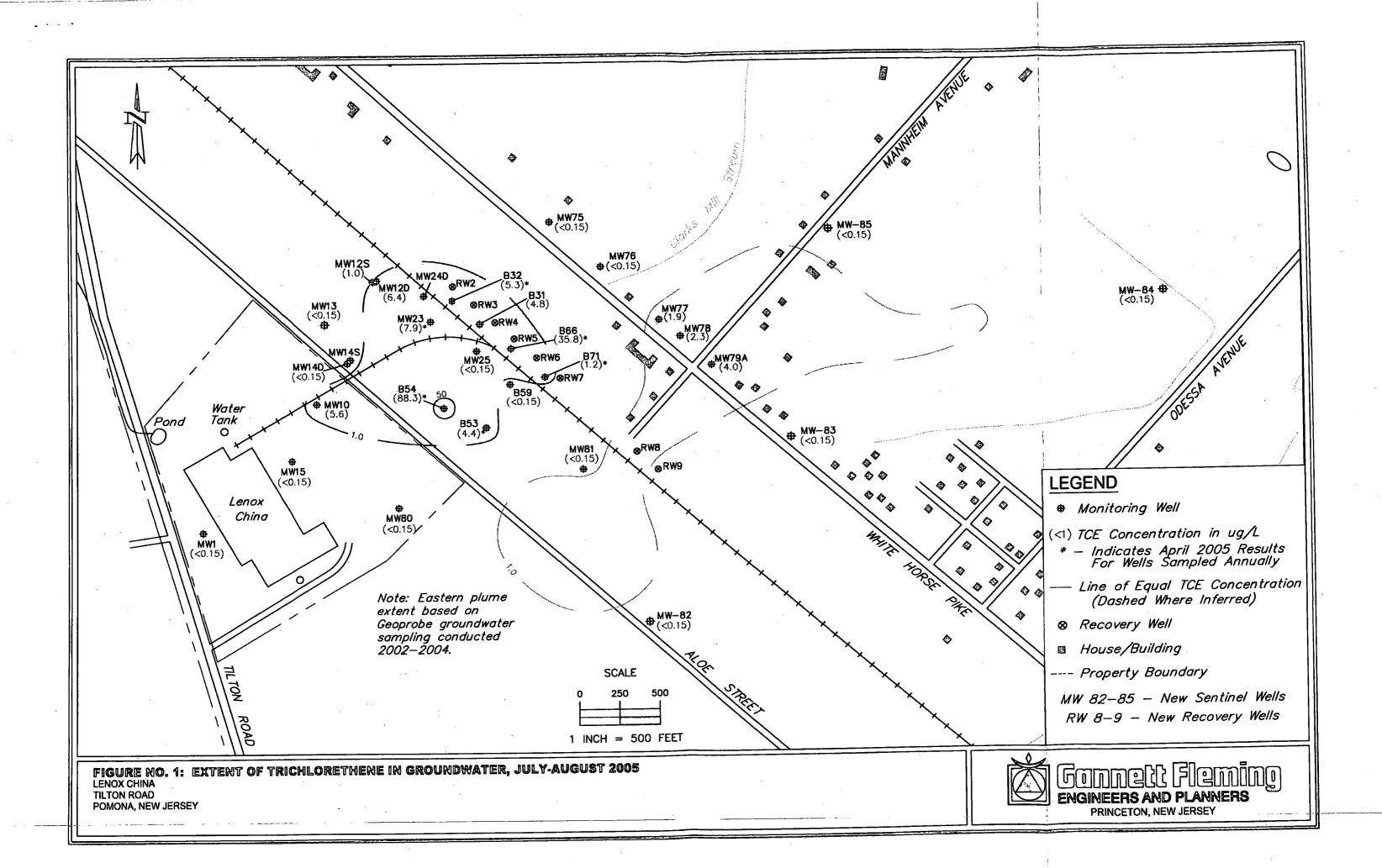
F. Faranca, NJDEP

D. Clark, NJDEP

L. Fantin, Lenox

J. Kinkela, Lenox

G. Berman



Richard J. Codey

Acting Governor

Department of Environmental Protection

Bradley M. Campbell Commissioner

October 7, 2005

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re:

Lenox China Facility

**Ecological Risk Assessment** 

Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (NJDEP) reviewed the above referenced report dated July 18, 2005. The NJDEP has determined that the report is approved.

Should you have any questions, please contact me at (609) 984-4071 (frank.faranca@dep.state.nj.us).

Sincerely,

Frank Faranca, CHMM, Site Manager

Bureau of Case Management

C: Shane Nelson, USEPA, Region II
Daryl Clark, NJDEP/DPFSR/BGWPA



# State of New Jersey Department of Environmental Protection

JON S. CORZINE

LISA P. JACKSON Commissioner

May 10, 2006

Mr. Louis A. Fantin, VP Lenox Incorporated 100 Lenox Drive Lawrenceville, NJ 08648

NTD 002325074

Dear Mr. Fantin:

Re:

Lenox China Facility

ISRA Area of Concern (AOC) Waiver Application

ISRA Case No. E20050276

Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (NJDEP) reviewed the above referenced AOC waiver application for fourteen AOCs/SWMUs dated March 28, 2006. The NJDEP's Bureau of Case Management determined that the ISRA AOC Waiver Application is approved.

Should you have any questions, please contact me at (609) 984-4071 (frank.faranca@dep.state.nj.us).

Sincerely

Frank Faranca, CHMM, Site Manager

Bureau of Case Management

C: Barry Tornick, USEPA, Region II

Daryl Clark, NJDEP/DPFSR/BGWPA